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(FILE 'HOME' ENTERED AT 12:34:09 ON 17 SEP 2006)

FILE 'REGISTRY' ENTERED AT 12:34:17 ON 17 SEP 2006

L1 STRUCTURE UPLOADED

L2 50 S L1

L3 13526 S L1 FULL

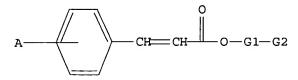
FILE 'CAPLUS' ENTERED AT 12:34:58 ON 17 SEP 2006

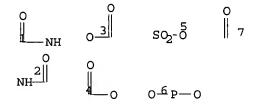
L4 10184 S L3

L5 21 S L4(L) (DYE OR COLORANT OR INK)

## => d que 15 stat

L1 STR





G1 Cy,Ak

G2 [@1], [@2], [@3], [@4], [@5], [@6], [@7]

Structure attributes must be viewed using STN Express query preparation.

L3 13526 SEA FILE=REGISTRY SSS FUL L1

L4 10184 SEA FILE=CAPLUS ABB=ON PLU=ON L3

L5 21 SEA FILE=CAPLUS ABB=ON PLU=ON L4(L)(DYE OR COLORANT OR INK)

=> d 1-21 bib abs hitstr

```
LS ANSWER 1 OF 21 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2006:813532 CAPLUS
DN 145:239149
T Photographic coupler and image dye light-stabilizing systems
IN Mura, Albert J., Eiff, Shari L., Russo, Gary M.
Eastnan Kodak Company, USA
SO U.S., 31pp.
CODEN: USKXAM
DT Patent
LA English
FAN.CNT 1
PATENT NO. KIND DATE APPLICATION NO.

PI US 7090969
B1 20060815 US 2005-80086
                                                                                                                   DATE
20060815
20050315
                                                                                                                                                                                                                                                      DATE
PI US 7090969
PRAI US 2005-80086
GI
                                                                                                                                                                  US 2005-80086
                                                                                                                                                                                                                                                      20050315
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A photog. element comprises a silver halide emulsion layer having associated therewith a dye forming coupler and a compound I wherein L is a linking molety; X is a heteroatom group selected from O, S, or NR; where R' is H or a substituent w = 0-1; R is hydrogen or a substituent group; n is an integer from 0 to 5; ST represents a stabilizer selected from the group consisting of: a thiomorpholine dioxide; a dialkoxy aromatic group linked through a phenolic oxygen; a dialkoxy aromatic group linked through the

through a phenolic oxygen; a dialkoxy aromatic group linked through the aromatic ring; a sulfonamido group; a hydroxyphenyl benzotriazole group; and a phenolic group.

IT 905856-62-4P.
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (image dye light-stabilizing systems)
RN 905856-62-4 (APLUS
CN INDEX NAME NOT YET ASSIGNED

THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD RE.CNT 5

L5	ANSWER 2 OF 21 CAR		PYRIGHT 200	6 ACS on STN	
AN	2006:537421 CAPLUS	;			
DN	145:26990				
TI				of pericarp of Viburnum	
	extracts of the per	icarp,	and use of t	the pericarp for antioxi	dants,
				, beverages, and colors	ints
IN	Iwai, Kunihisa: Mat		jime: Onode:	ra, Akio	
PA	Aomori Prefecture,				
so	Jpn. Kokai Tokkyo P	(oho, 12	pp.		
	CODEN: JKKKAF				
DT	Patent				
LA	Japanese				
FAN.	CNT 1				
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PΙ	JP 2006141334				
	JP 2006141334 JP 2004-338715	A2	20060608	JP 2004-338715	20041124
AB			20041124	enic acid, and its deriv	
A.D	from Viburoum dilas	chocyan	in, enterege	snic acid, and its derived containing seed and pe	s. 15 separated
of	Trom Viburnum dila	acum ju	ica Lagrades	containing seed and pe	ricarp, by use
••	friction between fr	mit res	idues or she	rasion. Diagrams of the	annanatus for
	separation of the r	aricarn	are diver	The pericarp separated	from V
di la	tatum	or rour b	are green.	The perioarp saparaceo	ZIOM V.
		red sion	ificantly hi	igher antioxidant activi	ty than the
	juice residues.	,		,	o,
IT	327-97-9, Chlorogen	ic scid			
				ed); FFD (Food or feed u	se); THU
	(Therapeutic use);	BIOL (B	iological st	tudy); USES (Uses)	,,
	(separation of p	ericarp	containing	anthocyanin and chlorog	enic acid from
	Viburnum dilatat	um juic	e residues f	for antioxidants, powder	ed materials,
	supplements, for	ds, bev	erages, and	colorants)	
RN	327-97-9 CAPLUS				
CN				-dihydroxyphenyl)-1-охо	
	propenyl]oxy]-1,4,5	-trihyd	гожу-, (15,3	3R, 4R, 5R) - (9CI) (CA IN	DEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

L5 ANSWER 1 OF 21 CAPLUS COPYRIGHT 2006 ACS ON STN ALL CITATIONS AVAILABLE IN THE RE FORMAT (Continued)

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ANSWER 3 OF 21 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2005:632295 CAPLUS
DN 143:155064
II Aqueous ink compositions for writing tools and the ink-stored writing tools
Takasu, Yoichi, Tsuchiya, Yoko
PA Pilot Ink Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 11 pp.
CODEN: JCXXAF
DT Patent
LA Japanese
FAN.CNT 1
PATENT NO. KIND DATE APPLICATION NO. DATE
                                                                                                                                                              APPLICATION NO.

JP 2004-33
 PI JP 2005194342 A2 20050721 JP 2004-33 20040105
PRAI JP 2004-33 20040105
B Title ink compns. contain 0.01-5% (preferably) chlorogenic acids to remove the air bubbles in the inks. An aqueous ink containing 0.5% Cafenol P 100
                  chlorogenic acid) showed no air bubbles.
327-97-9D, Chlorogenic acid, derivs.
RL: NOA (Modifier or additive use); USES (Uses)
(aqueous writing inks containing chlorogenic acids for air bubble removal)
327-97-9 CAPLUS
Cyclohexanecarboxylic acid, 3-{[3-(3,4-dihydroxyphenyl)-1-0x0-2-propenyl]oxy]-1,4,5-trihydroxy-, (15,3R,4R,5R)- (9CI) (CA INDEX NAME)
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10/772,286 Page 3 L5 ANSWER 4 OF 21 CAPLUS COPYRIGHT 2006 ACS on STN

. O (H) n

0 (H) n

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ANSWER 4 OF 21 CAPLUS COPYRIGHT 2006 ACS on STN 2005:431245 CAPLUS 142:465086
  DN
TI
                      142:465086

Yellow water-soluble dye preparations derived from dihydrochalcones, their preparation process, and their uses.
Sanoner, Philipper (guyt. Sylvain, Leguerneve, Christine; Lequere, Jean Hichel, Drilleau, Jean Francois; Renard, Catherine
Institut National De La Recherche Agronomique Inra, Fr.; Societe
Cooperative Agricole Elle eT Vire
Fr. Demande, 33 pp.
CODEN: FEXCEL
Patent
  IN
  PA
   so
                       Patent
French
    FAN. CNT
                        PATENT NO.
                                                                                                                                                                                  APPLICATION NO.
                                                                                                     KIND
                                                                                                                                 DATE
                                                                                                                                                                                                                                                                                DATE
                      FR 2862303
FR 2862303
WO 2005049598
                                                                                                                                   20050520
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                                                                                                           A1
B1
A1
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   ΡI
                                                                                                                                   20060106
20050602
                                                                                                                                                                                  WO 2004-FR2927
                                                                                                                                                                                                                                                                                20041116
WO 2005045598 A1 20050602 WO 2004-FR2927 20041116

W1 AR, AG, AL, AH, AT, AU, AZ, BA, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, BH, DZ, EC, EE, EG, ES, F1, GB, GD, GE, GH, GH, RH, HU, 1D, 1L, IN, 1S, JP, KE, KG, KP, KR, KZ, LC, LK, LK, LK, LK, LU, LV, MA, MD, MG, MK, MN, MW, MK, MZ, NA, TI, NO, NZ, OH, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TH, NT, TT, TT, ZL, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, WC, MR, SW, GR, CR, MR, MZ, BR, ST, TR, RG, KZ, HD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, MR, SE, SI, SK, TR, FR, BJ, CF, CG, CI, CM, GA, CN, GQ, GW, ML, MR, SK, NT, TD, TG

EP 1685120 A1 20060802 EP 2004-805464 20041116

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, PRAI FR 2003-13414 A 20031117

OS MARPAT 142:465086
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L5 ANSWER 4 OF 21 CAPLUS COPYRIGHT 2006 ACS ON STN (Continued)
RE.CHT 3 HERE ARE 3 CITED REFRENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

(Continued)

Absolute stereochemistry.
Double bond geometry unknown.

ANSWER 5 OF 21 CAPLUS COPYRIGHT 2006 ACS on STN 2005:324425 CAPLUS 142:400670 Information medium comprising two layers Lub, Johans Broer, Dirk Jans Kurt, Ralphs Hendriks, Robert Frans Maria Koninklijke Philips Electronics N. V., Neth. PCT Int. Appl., 29 pp. CODEN: PIXXD2 Patent English CMT 1 DT LA FAN. CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE manufacture The object of the present invention is to propose an mation medium comprising two information layers, and having an alternative structure compared to the prior art information medium. The present invention relates to an information medium comprising a first and a second information layers comprising marks intended to a store binary data, each mark being intended to be read by a light spot polarized according to a first direction or to a second direction, wherein: the first information layer comprises first marks sensitive to the first polarization direction, and second marks not sensitive to the first polarization direction, said first and second marks being both not sensitive or qually sensitive to the second polarization direction. The second polarization direction comprising third marks sensitive to the second polarization direction, and fourth marks not sensitive to said second polarization direction, said third and fourth marks being both not sensitive or equally sensitive to the first polarization direction direction.

849716-14-3

[Note that the description of the first polarization direction of the first polarization direction. 849776-14-3
RI: TEM (Technical or engineered material use), USES (Uses)
[information medium comprising two layers, liquid crystal monomers and

dichroic dyes)
849776-14-3 CAPUS
Hewitol, 1,4:3,6-dianhydro-, 4-(hexyloxy)benzoate 3-[4-[[(1-oxo-2-propenyl)oxy]methoxy]phenyl]-2-propenoate (9CI) (CA INDEX NAME)

L5 ANSWER 5 OF 21 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

ANSWER 7 OF 21 CAPLUS COPYRIGHT 2006 ACS on STN 2004:668931 CAPLUS 141:370211
Enhancing and inhibiting effects of aromatic compounds on luminol-dimethylsulfoxide-OH-chemiluminescence and determination of intermediates in oxidative hair dyes by HPLC with chemiluminescence detection
Zhou, Jianr Xu, Hong, Wan, Guo-Hui; Duan, Chun-Feng, Cui, Hus Department of Chemistry, University of Science and Technology of China, Anhui, 230026, Peop. Rep. China
Talanta (2004), 64(2), 467-477
CODEN: TLNTA2; ISSN: 0039-9140
Elsevier B.V.
Journal
English
The effect of 36 aromatic compds. on the luminol-dimethylsulfoxide-OH-chemiluminescence (CL) was systematically studied. It was found that dihydroxybenzenes, and ortho- and para-substituted aminophenols and phenylenediamines inhibited the CL and phenols with three or more than three hydroxyls except phloroglucin tended to enhance the CL. The CL inhibition and enhancement was proposed to be dependent on whether superoxide anion radical (02-) was competitively consumed by compds. in the CL system. Trihydroxybenzenes were capable of generating superoxide anion radicals (102-) was competitively consumed by compds. in the CL system. Trihydroxybenzenes were capable of generating superoxide anion radicals (102-) was competitively consumed by compds. in the CL inhibition. Based on the inhibited CL, a novel method for the simultaneous determination of p-phenylenediamine, o-phenylenediamine, p-manicophenol, o-aminophenol, resortion and hydroquinone by Migh-performance liquid chromatog, coupled with chemiluminescence detection was developed. The method has been successfully applied to determine intermediates in oxidative hair dyes and wastewater of shampooing after hair dyed.

Air dyes and wastewater of snampooing after hair dyes and wastewater of snampooing after hair dyes.

327-97-9, Chlorogenic acid

RE: ANT (Analyte): ANST (Analytical study)

(enhancing and inhibiting effects of aromatic compds. on luminol-dimethylsulfoxide-NosH chemiluminescence and determination of intermediates in oxidative hair dyes by HFLC with chemiluminescence detection)

327-97-9 CAPLUS

CVclohexanecarboxylic acid. 3-[[3-(3.4-dihydroxyohenyl)-1-oxo-2-

Absolute stereochemistry.
Double bond geometry unknown.

THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 6 OF 21 CAPLUS COPYRIGHT 2006 ACS on STN 2005:301926 CAPLUS 142:354328 142:354328

Dye/pigment-fading inhibitors containing Apocynum venetum extracts and their use for dye/pigment preparations and colored foods and beverages Ando, Seiji Tanaka, Hisashi; Shimabayashi, Hiroshi; Yokomizo, Atsushi Saneigen F.F.I. Inc., Japan Jpn. Kokai Tokkyo Koho, 21 pp.
CODEN: JKOXAF DT Patent Japanese FAN. CNT 1 PATENT NO. PI JP 2005087147 PRAI JP 2003-327423 AB Apocynum 2003-327423 KIND DATE APPLICATION NO. DATE PATENT NO. XIND DATE APPLICATION NO. DATE

JP 200508717 A2 20050407 JP 2003-327423 20030919

JP 2003-327423 20030919

Apocynum venetum exts. are useful as fading inhibitors for dyes and pigments, e.g., anthocyanins, flavonoids, and carotenoids. A. venetum leaf aqueous 30 volume% ECOH extract contained chlorogenic acid 0.078, isoquercitrin 0.086, hypercoide 0.060, and catechin 0.0068 weight. An acidic aqueous solution (pH 3) containing 0.05 weight San Red RCFU (red age pigment) 0.1 weights of the extract showed 77.8% residual pigment after 3.5-h UV h UV
irradiation
327-97-9, Chlorogenic acid
RL: BSU (Biological study, unclassified), FFD (Food or feed use), HOA
(Modifier or additive use), BIOL (Biological study), USES (Uses)
(extract component, color-fading inhibitors containing Apocynum venetum

for dye/pigment prepns., foods, and beverages) 327-97-9 CAPLUS

327-97-9 CAPLUS Cyclohexanecarboxylic acid, 3-[[3-(3,4-dihydroxyphenyl)-1-oxo-2-propenyl]oxy]-1,4,5-trihydroxy-, (18,3R,4R,5R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

L5 ANSWER 7 OF 21 CAPLUS COPYRIGHT 2006 ACS on STN (Continued) ANSWER 8 OF 21 CAPLUS COPYRIGHT 2006 ACS on STN 2004:652667 CAPLUS 141:175626

141:175626
Lightfest colorant and lightfest ink composition including the same
Lee, Kyung-Hoon, Ryu, Seung-Hin, Jung, Yeon-Kyoung
Samsung Electronics Co., Ltd., S. Korea
U.S. Pat. Appl. Publ., 14 pp.
CODEN: USXXCO

DT Patent LA English FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
P	I US 2004158050	A1	20040812	US 2004-772286	20040206
	KR 2004072071	A	20040818	KR 2003-7996	20030208
	JP 2004238631	A2	20040826	JP 2004-32536	20040209
101	DAT VD 2003_7006		20030208		

PRAI KR 2003-7996 A 20030209

MARRAT 141:175626 A 20030209

MARRAT 141:175626 A 20030209

A 19thfast colorant and a lightfast ink composition including the lightfast colorant utilize a lightfast colorant that is derived by covalently binding a cinnamate derivative and a conventional colorant. The lightfast colorant improves storage stability as well as lightfastness when added to an ink composition A lightfast colorant was prepared from 4-carboxyphenyl-4'methoxycinnamate and C.I. direct black 168.

IT 733739-18-FP 733739-10-1P 733739-13-4F
733739-15-FP
RI: IMF (Industrial manufacture), RCT (Reactant), PREP (Preparation), RACT (Reactant or reagent)

RL: IMF (Industrial manufacture), RCT (Reactant), FREF (Preparation), RV (Reactant or reagent) (lightfast colorant and lightfast ink composition including the same 733739-08-7 CAPLUS Benzoic acid, 4-[[3-(4-methoxyphenyl)-1-oxo-2-propenyl]oxy]- (9CI) (CA INDEX NAME)

733739-10-1 CAPLUS Hexanoic acid, 6-{{3-(4-methoxyphenyl)-1-oxo-2-propenyl}oxy}- (9CI) (CA INDEX NAME)

733739-13-4 CAPLUS Butanoic acid, 3-[[3-(4-methoxyphenyl)-1-oxo-2-propenyl]oxy]- (9CI) (CA

ANSWER 8 OF 21 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

733739-19-0 CAPLUS
2-Propenoic acid, 3-(4-methoxyphenyl)-, 6-[[3-hydroxy-4-[[4-[[1-hydroxy-3,6-disulfo-7-[(4-sulfophenyl)azo]-2-naphthalenyl]azo]phenyl]azo]phenyl]eminoj-6-oxohexyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

PAGE 1-B

733739-22-5 CAPLUS

1H-Pyrazole-3-carboxylic acid, 4,5-dihydro-1-[4-[[3-[[3-(4-methoxyphenyl)-1-oxo-2-propenyl]oxy]-1-oxobutyl]sulfonyl]phenyl]-4-[[4-[[3-[[3-(4-methoxyphenyl)-1-oxo-2-propenyl]oxy]-1-oxobutyl]sulfonyl]phenyl]azo]-5-oxo-, monosodium salt (9CI) (CA INDEX NAME)

ANSWER 9 OF 21 CAPLUS COPYRIGHT 2006 ACS on STN INDEX NAME)

733739-15-6 CAPLUS Dodecanoic acid, 12-[(3-(4-methoxyphenyl)-1-oxo-2-propenyl)oxy]- (9CI) (CA INDEX NAME)

ΙT

733739-17-8P 733739-19-0P 733739-22-5P
733739-25-8P 733739-27-0P 733739-29-2P
RL: IMF (Industrial manufacture); TEM (Technical or engineered material uses); PREF (Preparation); USES (USes)
(lightfast ind composition including the same)
733739-17-8 CAPLUS
Benzoic acid, 4-[(3-(4-methoxyphenyl)-1-oxo-2-propenyl)cxy)-,
3-amino-4-[(4-[(1-amino-8-hydroxy-7-(phenylazo)-3,6-disulfo-2-naphthalenyl]szo]phenyl]szo]phenyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

ANSWER 8 OF 21 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

PAGE 2-A

Na

733739-25-8 CAPLUS
Benzoic acid, 2,6-d.hydroxy-3-[[4-[[1-hydroxy-7-[[12-[[3-(4-methoxyphenyl)-1-oxo-2-propenyl]oxy]-1-oxododecyl]amino]-3-sulfo-2-naphthelenyl]azo]-1-naphthelenyl]azo]- (9CI) (CA INDEX NAME)

#### L5 ANSWER 8 OF 21 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

733739-27-0 CAPLUS
2-Propencic acid, 3-{4-methoxyphenyl}-, 4-{{4',8'-diamino-9,9',10,10'-tetrahydro-9,9',10,10'-tetraoxo[1,1'-bianthracen]-4-yl}amino]carbonyl]phenyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

ANSWER 9 OF 21 CAPLUS COPYRIGHT 2006 ACS on STN
2002:359935 CAPLUS
DN 136:377516
TI Ink-jet printing inks and ink-receiving materials with excellent light resistance
IN Takeshita, Kinya; Murayama, Tetsuo; Kido, Hirotane
M Hitsubishi Chemical Corp., Japan
SO Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKCXAF
DT Patent
LA Japanese
FAN.CNT 1
PATENT NO. KIND DATE APPLICATION NO. DATE JP 2002138225 JP 2000-334138 A2 20020514 20001101 JP 2000-334138 20001101

UP 2000-334138 20001101
The inks and materials contain antioxidant compds. selected from colorants, rosmarinic acid, carnosolic acid, carnosol, rosmanol, epirosmanol, isorosmanol, rosmaridiphenol, rosmariduinone, and hesperidine.
2023-92-5
RL: MOA (Modifier or additive use), TEM (Technical or engineered material use), USES (USes)
(antioxidant; ink-jet printing inks and ink
-receiving sheets containing antioxidants for improving light resistance)
20283-92-5 CAPLUS
Benzenepropanoic acid, a-[[(2E)-3-(3,4-dihydroxyphenyl)-1-oxo-2-propenyl]oxyl-3,4-dihydroxy-, (ax)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+). Double bond geometry as shown.

L5 ANSWER 8 OF 21 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

PAGE 2-A

733739-29-2 CAPLUS 2-Naphthalencarboxylic acid, 3-[[4-[[3-(4-methoxyphenyl)-1-oxo-2-propenyl]oxy]benzoyl]oxy]-4-[(4-methyl-2-sulfophenyl)azo]- (9CI) (CA INDEX NAME)

ANSWER 10 OF 21 CAPLUS COPYRIGHT 2006 ACS on STN 2001:693041 CAPLUS 135:262001 Method for dyeing dry hair using an oxidoreductase and a dye precursor Sorensen, Niels Henrik Novozymes A/S, Den. PCT Int. Appl., 79 pp. CODEN: PIXXD2 Patent

Patent

FAN.		1																
	PA:	TENT '	NO.			KIN:	D	DATE			APPL	I CAT	ION	NO.		D	ATE	
							-											
PI	WO	2001	0680	42		A1		2001	0920	,	<b>VO</b> 2	001-	DK16	6		21	0010	313
		W:	ΑE,	AG,	ΑĹ,	AM,	ΑŤ,	ΑU,	ΑZ,	BA,	BB,	BG,	BR,	BY,	BZ,	CA,	CH,	CN,
			CR,	CU,	CZ,	DE,	DX,	DM,	DŻ,	EE,	ES,	FI,	GB,	GD,	GE,	GH,	GM,	HR,
			HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KP,	KR,	KZ,	LC,	LK,	LR,	LS,	LT,
			LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NO,	NZ,	PL,	PT,	RO,	RU,
			SD,	SE,	SG,	SI,	SK,	SL,	TJ,	TM,	TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VN,
			ΥU,	ZA,	ZW,	AM,	AZ,	BY,	KG,	ΚZ,	MD,	RU,	TJ,	TM				
		RW:	GH,	GM,	ΚE,	LS,	MW,	MZ,	SD,	SL,	SZ,	TZ,	UG,	ZW,	AT,	BE,	CH,	CY,
			DE,	DK,	ES,	FI,	FR,	GB,	GR,	IE,	IT,	LU,	MC,	NL,	PT,	SE,	TR,	ΒF,
			ВJ,	CF,	CG,	CI,	CH,	GΑ,	GN,	G₩,	ML,	MR,	NE,	SN,	TD,	TG		
	US	2002	0075	24		λl		2002	0124		US 2	001-	9192	36		21	0010	328
PRAI	DK	2000	-439			Α		2000	0317									
	US	2000	-192	688P		P		2000	0328									
	WO	2001	-DK1	66		W		2001	0313									
AR		ne tho	d fo	r dv	e i na	ker	atin	ous	fihe	rs i	a ba	mad .	00 6	onta	ctin	th.		

A method for dyeing keratinous fibers is based on contacting the keratinous fibers in a dry state with a dyeing composition comprising at

keratinous fibers in a dry state with a dyeing composition comprising at to considereductase, such laccase, exidase or peroxidase, and at least one dye precursor for a sufficient period of time and under conditions sufficient to permit dyeing of Keratinous fibers. A dye precursor is selected from the group consisting of diamines, mainophenols, pyridine, pyrazole and pyrazole pyrimidine derivs. The dyeing compositio further comprises a mediator, i.e., a substrate of exidereductase, selected from the group consisting of diamines, mainophenols and polyphenols. The procedure is carried out at a pH 3-10 for 10-60 min. In this way it is possible to dye keratinous fibers, e.g. human hair, in a simple and efficient manner without significantly damaging the hair. For example, a hair dye composition contained laccase from Hycelophthora thermophila 0.05 mg ep/mL, p-phenylenediamine (PPD)0.3%, and 5-maino-o-cresol 0.3% in a phosphate buffer.

227-97-9, Chlorogenic acid
AL: BUU (Biological study); USES (Uses)

(dyeing compns. for dry hair containing microbial exidereductase, dye precursor, and mediator)

227-37-9 CAPLUS

327-97-9 CAPLUS Cyclohexanecarboxylic acid, 3-[(3-(3,4-dihydroxyphenyl)-1-oxo-2-propenyl]oxy]-1,4,5-trihydroxy-, (1S,3R,4R,5R)- (9CI) (CA INDEX NAME)

L5 ANSWER 10 OF 21 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

Absolute stereochemistry.
Double bond geometry unknown.

RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD

L5 ANSWER 11 OF 21 CAPLUS COPYRIGHT 2006 ACS on STN (Continued ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 12 OF 21 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2000:441313 CAPLUS
DN 133:63587
T1 Hair dye compositions containing hydroxystilbenes
IN Pruche, Francis; Saint, Leger Didier; Bernard, Bruno
PA L'Oreal, Fr.
SO EUr. Pat. Appl., 8 pp.
CODEN: EPXXW
DT Patent
LA French
PAN.CHT 1
PATENT NO. KIND DATE APPLICATION NO. DATE
P1 EP 1013260 A2 20000528 EP 1999-403075 19991208
EP 1013260 A3 20000705
R: AT, BE, CH, DE, DX, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
IE, SI, LT, LV, FI, RO
FR 2787319 A1 20000623 FR 1998-16258 19981222
FR 2787319 B1 20020614
US 200201699 A1 200000623 FR 1998-16258 19991221
US 6409772 B2 20020624
US 200201699 A1 20000701 JP 1999-365256 19991222
PRAI FR 1998-16258 A 19981222
SO MARRAT 133:63587
AB Hair dye compns. containing hydroxystilbenes are disclosed. A hair dye contained resveratrol 5.26, caffeic acid 0.173, laccase 0.002 mmole and phosphate buffer pH = 7.2 q.s. 100 mL. The composition is applied on the shampo, rinsed and dried to obtain a clear blond color.
IT 327-97-9, Chlorogenic acid
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(Mair dye compns. containing hydroxystilbenes)
RN 327-97-9 CAPLUS
CN Cyclohexanecarboxylic acid, 3-[(3-(3,4-dihydroxyphenyl)-1-oxo-2-propenyl)cxyl-1-4,5-t-trhydroxy-, (1S,3R,4R,SR)- (9CI) (CA INDEX NAME)

```
ANSWER 13 OF 21 CAPLUS COPYRIGHT 2006 ACS on STN 2000:383884 CAPLUS 133:22149
                                         133:22149
Hair dye compositions containing oxidoreductase and mediators
Sorensen, Niels Henrik; McDevitt, Jason Patrick
Novo Nordisk A/S, Den.
PCT Int. Appl., 96 pp.
CODEN: PIXXD2
              PA
SO
              DT
                                         Patent
FAN. CNT 2

PATENT NO. KIND DATE APPLICATION NO. DATE

PI WO 2000032158 A1 20000608 WO 1999-DK674 19991201

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, CE, GH, GM, HR, HU, ID, IL, IN, IS, JF, KE, KG, KF, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NO, Z, PL, FT, RO, RU, SD, SE, SG, S1, SK, SL, TJ, TH, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TH

RW: GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DX, ES, FI, FR, GB, GA, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

CA 2352778 AA 20000608 CA 1999-2352778 19991201

EP 1137391 A1 20011004 EP 1999-957262 19991201

EP 1137391 A1 20011004 EP 1999-957262 19991201

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO

JP 2002531386 T2 20020924 JP 2000-584855 19991201

US 6572843 B1 20031603 US 2000-523298 20000310

PRAI US 1999-261807 B2 19991201

US 1999-51807 B2 19991201

US 1999-51807 B2 19991201

WS 1999-DK674 V 19991201

AB A method for treating hair, combining permanent dyeing and straightening of hair, without significantly damaging the hair is disclosed. The hair is treated by chemical reducing covalent disulfide linkages in the hair, and contacting said hair with at least 1 oxidoreductase, at least 1 mediator, and at least 1 chemical oxidizing agent in an ancount equivalent to 0.001-14 hydrogen percxide of the dyeing formulation. The efficiency of dyeing of blonde hair was improved when dyeing was performed on chemical straightened hair relative to untreated hair.

IT 327-97-9, Chlorogenic acid

Ri. BUU (Biological use, unclassified); BIOL (Biological study); USES (USes)

(Mair dye compns. containing oxidoreductase and mediators)
              LA English
FAN.CNT 2
                                         (hair dye compns. containing oxidoreductase and mediators) 327-97-9 CAPLUS
                                         Cyclohexanecarboxylic acid, 3-[[3-(3,4-dihydroxyphenyl)-1-oxo-2-propenyl]oxy]-1,4,5-trihydroxy-, (1S,3R,4R,5R)- (9CI) (CA INDEX NAME)
           Absolute stereochemistry.
Double bond geometry unknown.
```

ANSWER 14 OF 21 CAPLUS COPYRIGHT 2006 ACS on STN 2000:50060 CAPLUS 132:100486 132:100486
Image-enhancing composition for imaging and printing materials
Kovacs, Gregory J.; Sprague, Robert A.; Halhotra, Shadi L.; Naik, Kirit
N.; Lesani, Fereshteh; Boils, Danielle C.; Mayo, James D.; Drappel, Stephan V. Xerox Corporation, USA Eur. Pat. Appl., 21 pp. CODEN: EPXXDW DT Patent
LA English
FAN.CNT 1

PATENT NO. KIND DATE APPLICATION NO. DATE

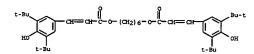
PI EP 972651 A1 20000119 EP 1999-113734 19990713

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,

IE, SI, LT, LY, FI, RO

JP 2000198267 A2 20000718 JP 1999-195520 19990709
PRAI US 1998-118573 A 19980717

AB Disclosed is an image-embassion composition for imaging and printing Patent English Disclosed is an image-enhancing composition for imaging and printing materials,
wherein the image-enhancing composition contains a solvent, a polymeric binder, a dye mordant, a substantially water-soluble anticurl compound, a substantially water-soluble desizing compound, a lightfastness-improving compound, a amer,
an optional biocide, and an optional filler.
88797-00-6, 1,6-Hexamethylene bis(3,5-di-tert-butyl-4-hydroxyhydrocinnamate)
RL: TEM (Technical or engineered material use); USES (Uses)
(ink-jet printing materials treated with image-enhancing
compns. containing)
88797-00-6 CAPUS
2-Propencic acid, 3-(3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-,
1,6-hexamediyl ester (SCI) (CA INDEX NAME)



RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 13 OF 21 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT RE.CNT 7

ANSWER 15 OF 21 CAPLUS COPYRIGHT 2006 ACS on STN 1997:258896 CAPLUS 126:279238 126:279238
Separation and identification of constituents of Colombian raw sugar Larrahondo, Jesus E.; Godshall, Mary An; Clarke, Margaret A. CEMICANA, Cali, Colombia
Proceedings of the Sugar Processing Research Conference (1996) 137-145
CODEM: PSPCE4: ISSN: 0730-6490
Sugar Processing Research Institute PB DT LA AB English
The major classes of colorants in Colombian raw sugar were isolated using MeOH as an extracting agent. The crude extract was partitioned between CHC13 and water, extraction of the main colorant components from the aqueous fraction acetate followed. This last fraction was rich in several phenolic acid derivs. carbohydrate-related compds., and glyceric acid. The anal. for each extract was performed by GC-MS according to a procedure for phenols in supar products desorthed by SFM [1982]. Fractionation of an acidic aqueous solution of raw sugar by XAD-2 Amberlite resin showed, as major components, phenolic compds. with slightly and moderately acidic groups eluted by Na2CO3 solution and MeOH, resp. Further studies, e.g. the effect of cane burning and the impact of tops and trash on color in sugarcane juice, were investigated very recently, and it was established that burning alone, as well as tops and trash, contributed to increased cane juice color in the factory. bv Et well as tops and care factory,
327-97-9, Chlorogenic acid
RL: ANT (Analyte); ANST (Analytical study)
(separation and identification of carbohydrate and phenolic colorants of Colombian raw sugar)

CAPLUS

3-f[3-(3,4-dihydroxyphenyl)-1-oxo-

Cyclohexanecarboxylic acid, 3-[[3-(3,4-dihydroxyphenyl)-1-oxo-2-propenyl]oxy]-1,4,5-trihydroxy-, (15,3R,4R,5R)- (9CI) (CA INDEX NAME)

ANSWER 16 OF 21 CAPLUS COPYRIGHT 2006 ACS on STN 1992:598225 CAPLUS 117:198225 Silver halide-containing heir dye compositions Mizumaki, Katsumi Japan Jpn. Kokai Tokkyo Koho, 10 pp. CODEN: JKXXAF PA SO Patent LA Japanese
FAN.CNT 1
PATENT NO. APPLICATION NO. KIND DATE DATE PI JP 04187625 PRAI JP 1990-319691 AB A hair dva A2 19920706 19901122 JP 1990-319691 19901122 A hair dye composition for dyeing grey hair with prolonged dyeing effect and without hair damage due to its low alkalinity consists of silver halides 11,
AgBr, AgI and/or AgF), an alkaline agent (e.g. ammonium bicarbonate), a dye
(e.g. tannins), dyeing aids (e.g. Zr compds.), and other components.
Thus, a hair dye composition consists of AgCI 0.8, 28% aqueous ammonia 2.8,
hydroxylanins-HCI 0.1, ethoxylated castor oil 1.0, perfumes 0.3, 1-mentol
0.2, resorcinol 0.1, Fe chlorophyrin 0.5, bromine-denatured alc. 4.0.0 and
diluted water to 100 weight%.
327-97-9, Chlorogenic acid
RL: BIOL (Biological study)
(hair dye composition containing silver halides and, for gray hair)
327-97-9 CAPLUS
Cyclohexanecarboxylic acid, 3-[[3-(3,4-dihydroxyphenyl)-1-oxo-2propenyl]oxy]-1,4,5-trihydroxy-, (18,3R,4R,5R)- (9CI) (CA INDEX NAME) ΙT

Absolute stereochemistry. Double bond geometry unknown.

L5 ANSWER 17 OF 21 CAPLUS COPYRIGHT 2006 ACS on STN Double bond geometry unknown.

ANSWER 17 OF 21 CAPLUS COPYRIGHT 2006 ACS on STN 1981:430217 CAPLUS 95:30217 Agent for oxidative dyeing of hair Bachmann, Heinrich: Portmann, Plato Wella A.-G., Fed. Rep. Ger. Offen., 18 pp. CODEN: COPEN: COPEN: COPEN: CO PA SO DT Pat. LA German FAN.CNT 1 PATENT NO. DATE APPLICATION NO. DATE KIND 19790928 19800925 DE 2939303 WO 8100810 19810416 19810402 DE 1979-2939303 WO 1980-EP103 A1 A1 W: BR, JP, US EP 26473 EP 26473 A1 19810408 EP 1980-105820 19800925 19830525 R: DE, GB, IT, SE BR 9008836 A 19810630 BR 1980-8836 JP 1980-502171 US 1981-253510 19800925 19800925 19810408 A T2 19810827 19841030 19790928 19800925 JP 56501204 US 4479803
PRAI DE 1979-2939303
WO 1980-EP103
OS MARPAT 95:30217

Oxidative hair dyes contain 1-4% by weight I (R = CO2R1, CONH2, CONHR1, CONHH12, CONHOH, CN, CH2OH, CH0, CH(OH)OR1, CH(OR1)2 and R1 is C1-5 alky1) and an aromatic compound with  $\geq 1$  OH group, and(or) an aromatic compound AB

≥1 CH group and ≥ N atom, and(or) a natural amino acid or its derivs., which acts to increase color intensity. A pH 7.8 dye solution of homogentisic acid amide [5663-54-7] 3, orcinol [504-15-4] 0.8, Cu glycinate 0.03, guanidine-HCl [50-01-1] 7.5, NH4HCO3 2, hydroxyethyl cellulose 1, EtoH 20, and H20 65.67% was applied to bleached hair for 15 min at 37-40°, then 50 mL of a solution of 5% NH4OH and 1.5% H202 was worked in and allowed to stand for 15 min. The hair was rinsed with 10% citric acid containing 0.05% EDTA, H2O, and dried. The hair had a natural brown color.

327-97-9 ΙT

327-97-9
RL: BIOL (Biological study)
(hair dye containing homogentisic acid derivs. and)
327-97-9 CAPLUS
2Cyclohexanecarboxylic acid, 3-[[3-(3,4-dibydroxyphenyl)-1-oxo-2-propenyl]oxy]-1,4,5-tribydroxy-, (1S,3R,4R,5R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

ANSWER 18 OF 21 CAPLUS COPYRIGHT 2006 ACS on STN
1977:454800 CAPLUS
877:54800 CAPLUS
877:54800 CAPLUS
670:59. D., Coombs, J.
Group Res. Dev., Tate and Lyle Ltd., Reading/Berks., UK
C. R. Assem. Gen. Comm. Int. Tech. Sucr., 15th (1975), 295-308 Publisher:
Comm. Int. Tech. Sucr., Tienen, Belg.
CODEN: 35VOAL
CONTERED: 35VOAL
CONTERED: 35VOAL
COMPRISIONAL ON Which catalyze the browning reactions during extraction and
refining of sugar, were isolated from sugar best and cane juices, resp.
and characterized for Hichaelis constant and UV light maximum absorption for
caffeic and chlorogenic acid (II), and 3,4-dihydroxyphenylalanine. The
possible routes of color formation from II-mediated reactions involving
the oxidation of a 2nd phenol or the reactions with maino acids or amino
groups of proteins are given. Of the many chemical compds. tested,
thioglycolate and Pamcraptocthanol [60-24-2] were the most effective
compds. to inactivate the I.
327-97-9
RL: USES (Uses)
(colorant formation in presence of caffeic acid and, in sugar
cane juices)
327-97-9 CAPLUS
Cyclohexanecarboxylic acid, 3-[[3-(3,4-dihydroxyphenyl)-1-oxo-2propenyl) loxyl-1,4,5-trihydroxy-, (15,3R,4R,5R)- (9CI) (CA INDEX NAME)

Cyclohexanecarboxylic acid, 3-[[3-(3,4-dihydroxyphenyl)-1-oxo-2-propenyl]oxy]-1,4,5-trihydroxy-, (15,3R,4R,5R)- (9CI) (CA INDEX NAME)

L5 ANSWER 19 OF 21 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1972:113153 CAPLUS
T6:115153
TI Fluorescence of sugars
AV Wall, James H., Carpenter, Frank G.
CS South. Mark. Nutr. Res. Div., Agric. Res. Serv., New Orleans, LA, USA
CODEN: XAARAY
Rep. 1971. ARS 72-90, 157-78
CODEN: XAARAY
Report
LA English
BF Fluorescence in com. sugars due to trace constituents correlates well with color over a wide range and could be used in place of, or as a complementary measurement to, color. Pluorescence is more sensitive than color in the low region and gives peaks (which can possibly be more informative than color), however, it is a more complicated measurement to make than color. Noncolored constituents which fluoresce can also be measured.

IT 327-97-0
RI USES (Uses)
(sugar colorants, fluorometry of)
RN 227-97-9 CAPLUS
CYClobexanecarboxylic acid, 3-{{3-(3,4-dihydroxyphenyl)-1-oxo-2-propenylloxyl-1,4,5-trihydroxy-, (1s,3x,4x,5x)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

L5 ANSWER 21 OF 21 CAPLUS COPYRIGHT 2006 ACS on STN
1972:101505 CAPLUS
1076:101505
T1 Quantitative measurement of sugars by gas-liquid chromatography
AU Velasco, Violeta S.; Heisler, M.; Dowling, J. F.
CODEN, COD

L5 ANSWER 20 OF 21 CAPLUS COPYRIGHT 2006 ACS on STN
N 1972:115152 CAPLUS
N 76:115152
TI Identification of sugar colorants
Farber, Leon; Carpenter, Frank G.
CS Cane Sugar Refining Res. Project, New Orleans, LA, USA
U. S., Dep. Agr., Agr. Res. Serv., [Rep.] (1971), ARS 72-90, 145-56
CODEN; XAARAY
TREPORT
LA English
AB Cane colorants [chlorogenic acid (I) [327-97-9],
caffeic acid [331-39-5], p-hydroxycinnamic acid [7400-08-0],
4-hydroxy-3-methoxycinnamic acid [1135-24-6], 4-hydroxy-3,5dimethoxycinnamic acid [530-59-6], kaempferol (II) [520-18-3], and
umbelliferone [93-35-6]] that escape the refining process and even persist
into the refined sugar are identified. The pigments are catalogued and
described as to color, fluorescent color, and mobility on high voltage
paper electrophoresis. Other schemes (e.g. solvent extraction and
thin-layer
chromatog.) are used to sep. significant quantities, using high voltage
paper electrophoresis to monitor the sepns. Several noncolored
constituents are identified; p-hydroxybenzoic acid [99-96-7],
4-hydroxy-3,5-6imethoxybenzoic acid [530-57-4], and 4-hydroxy-3methoxybenzoic acid [121-34-6]. Fumaric acid [110-17-8] and aconitic acid
[499-12-7], already known to be in cane sugar, are located on the high
voltage paper electrophoresis separation
327-97-9
RLi USES (Uses)
(Wayarcane colorants, chromatography identification of)
RN 327-97-9 CAPLUS
CM CYClohevanecarboxylic acid, 3-[3-(3,4-dihydroxyphenyl)-1-oxo-2propenylloxyl-1,4,5-trihydroxy-, [15, 38, 48, 58]- (9CI) (CA INDEX NAME)

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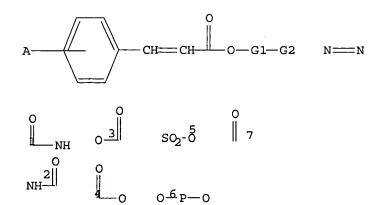
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http://www.cas.org/ONLINE/UG/regprops.html



G1 Cy,Ak

G2 [@1], [@2], [@3], [@4], [@5], [@6], [@7]

Structure attributes must be viewed using STN Express query preparation.

L8 17 SEA FILE=REGISTRY SSS FUL L6

L9 15 SEA FILE=CAPLUS ABB=ON PLU=ON L8

=> d 1-15 bib abs hitstr

L9 ANSWER 1 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2004:652667 CAPLUS
DN 141:175626
IL Lightfast colorant and lightfast ink composition including the same
IN Lee, Kyung-Hoon, Kyu, Seung-Hin, Jung, Yeon-Kyoung
S Samsung Electronics Co., Ltd., S. Korea
U.S. Pat. Appl. Publ., 14 pp.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 1
PATENT NO. KIND DATE APPLICATION NO. DATE PATEMT NO. KIND DATE APPLICATION NO. DATE

PI US 2004158050 A1 20040812 US 2004-772286 20040206

KR 2004072071 A 20040818 KR 2003-7996 20030208

JP 2004238631 A2 20040826 JP 2004-32536 20040209

PRAI KR 2003-7996 A 20030208

OS MARPAT 141:175626

A 1ightfast colorant and a lightfast ink composition including the lightfast colorant utilize a lightfast colorant that is derived by covalently binding a cinnamate derivative and a conventional colorant. The lightfast colorant improves storage stability as well as lightfastness when added to an ink composition A lightfast colorant was prepared from 4-carboxyphanyl-4"
methoxycinnamate and C.I. direct black 168.

IT 733739-17-8P 733739-19-07 733739-22-5P

RE: IMF [Industrial manufacture], TEM (Technical or engineered material use), PREP (Preparation), USES (Uses)

[lightfast colorant lightfast colorant and lightfast ink composition including the same)

RN 733739-17-8 CAPLUS

OB Benzoic acid, 4-[3-(4-methoxyphenyl)-1-oxo-2-propenyl]oxy]-,
3-amino-4-[[4-[[1-amino-8-hydroxy-7-(phenylazo)-3,6-disulfo-2-naphthalenyl]azo]phenyl azo]phenyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

L9 ANSWER 1 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN

PAGE 2-A

733739-25-8 CAPLUS
Benzoic acid, 2,6-dihydroxy-3-[[4-[[1-hydroxy-7-[[12-[[3-(4-methoxypheny1)-1-oxo-2-propeny1]oxy]-1-oxododecy1]amino]-3-sulfo-2-nephthaleny1]azo]-1-naphthaleny1]azo]- (OCI INDEX NAME)

ANSWER 1 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

733739-19-0 CAPLUS
2-Propenoic acid, 3-(4-methoxyphenyl)-, 6-[[3-hydroxy-4-[[4-[[1-hydroxy-3,6-disulfo-7-[(4-sulfophenyl)azo]-2-naphthalenyl]azo]phenyl]azo]phenyl]azo]phenyl]azo]coxohexyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

733739-22-5 CAPLUS

1H-Pyrazole-3-carboxylic acid, 4,5-dihydro-1-{4-[[3-{[3-{4-methoxyphenyl}-1-oxo-2-propenyl]oxy]-1-oxobutyl]sulfonyl]phenyl]-4-[[4-[[3-[[3-{4-methoxyphenyl}-1-oxo-2-propenyl]oxy]-1-oxobutyl]sulfonyl]phenyl]azo]-5-oxo-, monosodius salt (SCI) (CA INDEX NAME)

ANSWER 1 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN

733739-29-2 CAPLUS
2-Naphthalenecarboxylic acid, 3-[[4-[[3-(4-methoxyphenyl)-1-oxo-2-propenyl]oxy]benzoyl]oxy]-4-[(4-methyl-2-sulfophenyl)azo]- (9CI) (CAINDEX NAME)

ANSWER 2 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN 2002:480017 CAPLUS 137:70564 Optically-active isosorbide esters as photoreactive chiral agents, their use, liquid crystal compositions containing them, and optical materials using them

using them Yumoto, Masatoshi, Ichihashi, Mitsuyoshi Fuji Photo Film Co., Ltd., Japan Jpn. Kokai Tokkyo Koho, 30 pp. CODEN: JKOKAF

DT Patent

Japanese

	CMII				
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	JP 2002179682	A2	20020626	JP 2000-382515	20001215
ΑI	JP 2000-382515		20001215		

MARPAT 137:70564

Optically-active compds. I (Rl= H, halo, alkyl, aryl, heterocyclyl, alkenyl, alkynyl, alkoxy, acyl, alkoxycarbonyl, aryloxycarbonyl, acyloxy, cyanor L1, L2 = halo, alkyl, alkoxy, cyano, NO2; 1, m=0, 1, 2; X=N, Cl) are useful as photoreactive chiral agents. Helical structure of liquid crystals are changed by irradiating compns. containing liquid crystals, I, AB

photoinitiators with light. Helical structure of liquid crystals are fixed by imagewise irradiating the compns. with light having wavelength to which I are sensitive and irradiating with light having wavelength to which the photoinitiators are sensitive. Also claimed are color filters for liquid crystal displays, optical films, and recording materials containing at least liquid crystals and I. I are e.g. useful for preventing reverse twist domain of twisted-nematic displays.

439128-42-48 439128-44-69

439128-42-4P 439128-44-6P
RL: SFN (Synthetic preparation); TEM (Technical or engineered material use); PREF (Preparation); USES (Uses)
(preparation of isosorbide bis(phenylaxocinnamates or benzylideneaminocinnamates) as photoreactive chiral agents for liquid crystal devices)

ANSWER 2 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN

PAGE 1-B

ANSWER 2 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN (Continued) 439128-42-4 CAPLUS
D-Glucitol, 1,4:3,6-dianhydro-, bis[(2E)-3-[4-[(1E)-phenylazo]phenyl]-2-propencate] (9CI) (CA INDEX NAME)

Absolute stereochemistry. Double bond geometry as shown.

PAGE 1-B

≥N\_Ph

439128-44-6 CAPLUS
D-Glucitol, 1,4:3,6-dianhydro-, bis((2E)-3-[4-[(1E)-(4-methoxyphenyl)azo]phenyl]-2-propenoate] (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

ANSWER 3 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN 1999:15945 CAPLUS 110:15945 Repairies photosensitive material for photomechanical process and photomechanical

Negative photosensitive material for photomechanical process and photoengraving
Cihak, Vladimir, Vrabel, Ervin, Mistr, Adolf, Oktabec, Karel, Rusova, Hana
Czech.
Czech., 4 pp.
CODEN: CZXXA9
Patent
Czech
CXT 1
PATENT NO. KIND DATE APPLICATION NO. DATE DATE APPLICATION NO. CS 1984-8581

PATENT NO.

KIND DATE

APPLICATION NO.

DATE

PI CS 251287

B1 19870611 CS 1984-8581 19841112

AB A neg, photosensitive material for photomech. process and for forming line and screen images by photoengraving consists of a polyester or polyolefin support with transparency 2654 and a pigmented emulsion containing an ester of athylene glycol (1) with p-azidocinnamic acid (II), a cyclohewanone-azidobenazidehyde condensate, or 6-azido-2-(4-azidostyryl)benzimidazole 0.1-25, acid-cyclized polytsoprene or 1,3-butadiene (III) copolymer with styrene, vinyltoluene, or p-chlorostyrene (IV) 40-98, Versal pigments 0.5-40, and SiO2 flue dust 0.1-104, and is developed after exposure to UV redistion in hydrocarbons or aliphatic chlorohydrocarbons and may be engraved. The material evoids under-etching of the engraving layer. Thus, a dispersion containing III-IV copolymer 12, an ester of I and II 2, xylene 2, PhNe 46, Versal Blue A 1, Versal Yellow 6 2.5, and aerosil 0.5 g was applied as a 6-8-µm dry layer on a 125-µm biaxially oriented poly(ethylene terephthalate) film to give a photosensitive material.

IT 25433-99-2, Ethylene glycol p-azidocinnamate

RL: USES (Uses)

(neg. working photosensitive materials containing butadiene-styrene derivative

copolymer and, for photomech. process and photoengraving)

N 25433-99-2 CAPLUS

vative copolymer and, for photomech. process and photoengraving)
25433-99-2 CAPUS
2-Propenoic acid, 3-(4-azidophenyl)-, 1,2-ethanediyl ester (9CI) (CA
INDEX NAME)

ANSWER 4 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN 1989:15944 CAPLUS 110:15944 Color print production Cihak, Vladimir, Vrabel, Ervin, Oktabec, Karel, Rusova, Hana Czech. PA SO Czech., 8 pp. CODEN: CZXXA9 Patent FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE PI CS 251288 PRAI CS 1984-8582 В1 19870611 CS 1984-8582 19841112 19841112

CS 1984-8582
A color print comprised of separated monocolor layers perfectly in register which are successively formed on a dimensionally-stable polyester or polyolefin support is prepared by application, exposure, and developing photosensitive layers containing esters of ethylene glycol with p-azidocinnsmic acid, 2,6-bis(4-azidobenzylidene)cyclohexanose, or 6-azido-2-(4-azidostyryl)benzimidazole 0.1-d0, acid-cyclized polyisoprene or copolymer of 1,3-butadiene with styrene, vinyltoluene, or p-chlorostyrene 15-98, phthalic alkyds modified with drying oils 0-15, and finely dispersed pigments and fillers 1.9-40%. The color print may be prepared directly by the neg, process or the pos. process using an auxiliary neg, mask on the back. The preparation of a color print from sep. green,

orange, and black images by the pos. process and from black, azure, purple, and yellow images by the neg. process are described. 25433-99-2. Ethylene glycol p-azidocinnamate RL: USBS (Uses)

(photosensitive compns. containing, for production of multilayered color

prints)
25433-99-2 CAPLUS
2-Propenoic acid, 3-(4-azidophenyl)-, 1,2-ethanediyl ester (9CI) (CA
INDEX NAME)

ANSWER 6 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN
1988:121861 CAPLUS
108:121861 CAPLUS
108:121861 Synthesis and photochemical behavior of poly[p-(pazidocinnamoyloxy)styrene] and 1,4-bis(p-azidocinnamoyloxy)benzene
Ninosiya, Atsuyukir Mishiwaki, Tohrun Anda, Kinjir Yokozawa, Yuuji
Tokyo Metrop. Ind. Technol. Cent., Tokyo. 115, Japan
Nippon Insatzu Gakkaishi (1987), 24(4), 326-32
COLDEN: NIGAEV, ISSN: 0914-3319
Journal
Japanese
Poly[p-(p-azidocinnamoyloxy)styrene] (PACS) and 1,4-bis-(pazidocinnamoyloxy)benzene (BACB) were synthesized to obtain a highly
photosensitive polymer having 2 photoreactive sites, azido and active
ethylenic double bond. p-Azidocinnamoyloxy chloride was prepared and used
for this synthesis. Using this acid chloride poly(p-hydroxystyrene) and
dihydroxybenzene undeervent esterification in pyridine. Synthesized
esters were identified to be PACS and BACB from their IR and NMR spectra.
The photosensitivity of PACS containing no sensitizer was about 10 times

of poly(vinyl cinnamate) (cinnamolized: 75%) containing 10 weight% Michlers ketone in gray-scale method. The photosensitivity of acrylonitrile-butadiene-styrene resin containing 25 weight% BACB was about 0.5 times that

the above poly(vinyl cinnamate) system. Disappearance rate of azido group in PACS was faster by about 1.6 times than that of the active ethylenic double bond when it was irradiated using an UV lamp at the initial stage; in BACB it was faster about 1.1 times. The photosensitive groups of PACS and BACB were preserved without any reaction at an oven temperature <100° when they were heated in the oven for 10 min. PACS solubilized (.apprx.5 weight) in monochlorobenzene showed a good preservation stability without gelation for about 6 mo in the refrigerator, whereas BACB in the same state did it for 2 mo. 25434-01-9 CPU.

[STAGE OF THE O

ANSWER 5 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN 1989:15943 CAPLUS 110:15943 Negative photosensitive material for photomechanical process Cihak, Vladimir, Vrabel, Ervin, Mistr, Adolf, Oktabec, Karel, Rusova, Hana Czech. Czech., 5 pp. CODEN: CZXXA9 DŤ Patent LA Czec FAN.CNT 1 Czech PATENT NO. APPLICATION NO. DATE KIND DATE В1 CS 251286 19870611 CS 1984-8579 19841112 PRAI CS 1984-8579 19841112 A neg. photosensitive material for reproduction of line and screen images in printing, cartog, electronics, etc., consists of a polyester or polyolefin support with a transparency 2651 and a 2-10-µm photosensitive pigmented layer containing an ester of ethylene glycol [I] p-azidocinnamic acid (II) or a condensation product of 4-azidobenzaldehyde with ketones or 6-azido-2-(4-azidotyry!)benzimidazole 0.1-30, a copolymer of 1,3-butadiene (III) with styrene, vinyltoluene, or p-chlorostyrene (IV) or acid-cyclized natural or synthetic polyisoprene 30-98, and Versal pigments 2.9-40%. The material gives dimensionally stable copies by exposure to UV radiation and developing in hydrocarbons or chlorohydrocarbons. Thus, s photosensitive material was prepared by coating a composition containing a low-viscosity mineral oil 1, an ester of I with

II 2. III-IV copolymer 10, xylene 28, PhMe 45, Versal Blue A 2.5, Versal Yellow G 1.5, Versal Red R 1 q, and PhMe on a biaxially oriented 125-µm poly(ekhylene terephthalate) film and drying at 60°. 25433-99-2, Ethylene glycol p-azidocinnamate

RL: USES (Uses) (neg. working photosensitive materials containing butadiene-styrene (neg. Working photosensian and derivative copolymers and, for photomech, properties)

RN 2643-99-2 CAPLUS
CN 2-Propencic acid, 3-(4-ezidophenyl)-, 1,2-ethanediyl ester (9CI) (CA INDEX NAME)

ANSWER 7 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN 1985:229475 CAPLUS Correction of: 1983:225299 102:229475 Correction of: 98:225299 Photosensitive anthraquinone derivatives for photoresists Agency of Industrial Sciences and Technology, Japan Jpn. Kokai Tokkyo Koho, 3 pp. COEN: JKOKAF Patent Japanese CMT 1

DT Pal.
LA Japanese
FAN.CNT 1
PATENT NO. KIND DATE APPLICATION NO. DATE

PATENT NO. KIND DATE APPLICATION NO. DATE

PI JP 57072952 A2 19820507 JP 1980-149729 19801025

JP 58022142 B4 19830506

PANI JP 1980-149729 19801025

GI For diagram(a), see printed CA Issue.

AB New photosensitive anthraquinone derivs. I and II are claimed. The compds. are especially useful in photosensitive resin compns. Thus, 1,5-dihydroxyanthraquinone and p-azidocinnamcyl chloride are heated in pyridine to give II. Then, cyclized rubber and II were mixed in a HeCORT-PNMe-PhCI mixture and coated on a support to form a high-quality photoresist film.

T 83688-51-1 83688-52-2 RL USES (Uses) (Deso) (photoresist compns. containing cyclized rubber and)

RN 81688-51-1 CAPLUS

N 2-Propencia caid, 3-(4-azidophenyl)-, 9,10-dihydro-9,10-dioxo-1,5-anthracenediyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

DATE

ANSWER 7 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN

(Continued)

PAGE 2-A

83688-52-2 CAPLUS 2-Propencic acid, 3-(4-azidophenyl)-, 9,10-dihydro-9,10-dioxo-1,8-anthracenddyl ester (9CI) (CA INDEX NAME)

L9 ANSWER 8 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

PAGE 2-A

PAGE 1-A

- 83688-52-2 CAPLUS 2-Propencic acid, 3-(4-azidophenyl)-, 9,10-dihydro-9,10-dioxo-1,8-anthracenediyl ester (9CI) (CA INDEX NAME)

DN

ANSWER 8 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN 1983:225299 CAPLUS
Correction of: 1982:599403
98:225299
Correction of: 97:199403
Photosensitive anthraquione derivatives for photoresists Agency of Industrial Sciences and Technology, Japan Jpn. Kokai Tokkyo Koho, 3 pp.
CODEN: JDKOKAF
Patent
Japanese
PATENT NO. KIND DATE APPLICATION NO. KIND DATE JP 57072952 A2 19820507 JP 1980-149729

19801025

- New photosensitive anthraquinone derivs. I and II are claimed. The compds. are especially useful in photosensitive resin compns. Thus, 1,5-dihydroxyanthraquinone and p-azidocinnamoyl chloride are heated in pyridine to give II. Then, cyclized rubber and II were mixed in a MeCOEt-PhMe-PhCI mixture and coated on a support to form a high quality photoresist film.

  33688-51-12 83688-52-2P
  RL: PREP (Preparation)
  (preparation of, as photoresist sensitizer)
  83688-51-1 CAPLUS
  2-Propenoic acid, 3-(4-azidophenyl)-, 9,10-dihydro-9,10-dioxo-1,5-anthracenediyl ester (9CI) (CA INDEX NAME) AB

- ANSWER 8 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN

DATE

- ANSWER 9 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN 1983:44218 CAPLUS 98:44218 Photosensitizer for photosensitive resin compositions Agency of Industrial Sciences and Technology, Japan Jpn. Kokai Tokkyo Koho, 2 pp. CODEN: JXXXAF L9 AN DN TI PA SO DT Patent Japanese PATENT NO. KIND DATE APPLICATION NO.
- PATENT NO. KIND DATE APPLICATION NO. DATE

  PI JP 57080356 A2 19820519 JP 1980-157209 19801107

  JP 58082956 B4 19830622

  PRAI JP 1980-157209 B4 19830622

  PRAI JP 1980-157209 19801107

  AB 4,4'-Dihydroxybenzophenone bis-device resin compus. Thus,
  4,4'-dihydroxybenzophenone and p-azidocinnamate) (I) is useful as a
  photosensitizer in photosensitive resin compus. Thus,
  4,4'-dihydroxybenzophenone and p-azidocinnamoyl chloride were heated at
  60' in pyridine to give I. I was then mixed with cyclized rubber
  to give a photosensitive resin composition

  IT 84219-33-0

  RL: USES (Uses)
  (photosensitizer, for photosensitive resin compns.)

  RN 84219-33-0 CAPLUS

  CN 2-Propenoic acid, 3-(4-azidophenyl)-, carbonyldi-4,1-phenylene ester (9CI)
  (CA INDEX NAME)

PAGE 1-B

- L9 ANSWER 10 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)
  - PAGE 2-A
- 83688-52-2 CAPLUS 2-Propenoic acid, 3-(4-azidophenyl)-, 9,10-dihydro-9,10-dioxo-1,8-anthracenediyl ester (9CI) (CA INDEX NAME)

- 83688-51-1P 83688-52-2P RL: IMF (Industrial manufacture), PREP (Preparation) (preparation of, as photoresist sensitizer) 83688-51-1 CAPUS 2-Propanoic acid, 3-(4-azidophenyl)-, 9,10-dihydro-9,10-dioxo-1,5-anthracenediyl ester (9CI) (CA INDEX NAME)

- ANSWER 10 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN 1982:599403 CAPLUS 97:199403 Photocurable rubber compositions Agency of Industrial Sciences and Technology, Japan Jpn. Kokai Tokkyo Koho, 3 pp. COERN: XXXXIF Patent Japanese Japanese
  PATENT NO. KIND DATE APPLICATION NO. DATE

  JP 57072952 A2 19820507 VP 1980-149729 19801025
  1,5- Or 1,8-bis(p-azidocinnamoyloxy) anthraquinone was used as a photocuring accelerator for rubber. For example, a solution of 2 g cyclized rubber, 0.2 g 1,5-bis(p-azidocinnamoyloxy) anthraquinone (83668-51-1), 50 mL MEK, 30 mL toluene, and 30 mL PhCl was cast and dried to give a film curable in 10 s by 500 W UV-lamp irradiation 83668-51-1 83688-52-2
  RL: USES (Uses)

  (cyclized rubber and SBR containing, photocurable)
  83688-51-1 CAPIUS
  2-Propanoic acid, 3-4-azidophenyl}-, 9,10-dihydro-9,10-dioxo-1,5-anthracenediyl ester (9CI) (CA INDEX NAME) Japanese PATENT NO.
- - PAGE 1-A
- L9 ANSWER 10 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)
  - PAGE 1-A
    - PAGE 2-A
- 83688-52-2 CAPLUS 2-Propenoic acid, 3-(4-azidophenyl)-, 9,10-dihydro-9,10-dioxo-1,8-anthraceneddyl ester (9CI) (CA INDEX NAME)

ANSWER 10 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

ANSWER 11 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN (Continued) 2-Propenoic acid, 3-(4-azidophenyl)-, 1,4-phenylene ester (9CI) (CA INDEX

25434-02-0 CAPLUS Cinnamic acid, p-azido-, m-phenylene ester (8CI) (CA INDEX NAME)

ANSWER 11 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN 1970:31399 CAPLUS 72:31399
Organic light-sensitive substances. I. Properties of compounds containing the azide group Mistr, Adolfr Vavra, M.; Adlerova, H.; Babak, Z. Lachema, Brno, Czech.
Collection of Czechoslovak Chemical Communications (1969), 34(12), 3811-19 CODEN: CCCCAK; ISSN: 0010-0765 Journal
German
German
A mixture of 46 g p-N3C6H4CHO, 39.1 g H2C(CO2H)2, 80 ml EtOH, and 8 ml C5H5N
refluxed 8 hr, the precipitate collected at 20°, washed with E tOH and
Et2O, refluxed in 90 ml EtOH 2 hr, the solid collected at 20°, and
recrystd. from dioxane gave p-N3C6H4CH:-CHCO2H, decomposing >150°.
The reaction of acyl chlorides with diols in C5H5N (4 hr at 50°)
gave the following (RCO2)22 (R. 2, \* yisld, and m.p. gives): p-N3C6H4,
(CH2)2, 45, 87-8° (EtOH)) p-N3C6H4, (CH2)4, 54, 96-6°,
(EtOH)) p-N3C6H4, p-C6H4, 80, 171-3° (1:1 EtOH-Me2CO)) p-N3C6H4,
(EDCH)) m-N3C6H4, (CH2)4, 63, 74-6° (EtOH)) m-N3C6H4, (PC3)2, 68, 52-3°
(EtOH)) m-N3C6H4, (CH2)4, 63, 74-6° (EtOH)) m-N3C6H4, p-C6H4, 75,
181-4° (dioxane) m-N3C6H4, C6H2, (EtOH), p-N3C6H4CHCH, (CH2)4,
63, 137-9° (dioxane)) p-N3C6H4CHCH, p-C6H4, 61, 174-6°
(dioxane) p-N3C6H4CHCH, m-C6H4, 67, 161-3° (dioxane).
Condensation of p-N3C6H4CHCH, m-C6H4, 67, 161-3° (dioxane).
Condensation of p-N3C6H4CHCH, m-C6H4, 67, 161-3° (dioxane).
Compds. were measured and the photochem. activity in a light-sensitive
layer determined I was the most active compound
25433-99-22 25434-00-0P 25434-01-9P
25434-02-0P
RL: SPN (Synthetic preparation), PREP (Preparation)
(preparation of)
(preparation of)
25433-09-20 CAPLUS
2-Propenoic acid, 3-(4-azidophenyl)-, 1,2-ethanediyl ester (9CI) (CA
INDEX NAME)

25434-00-8 CAPLUS Cinnamic acid, p-azido-, tetramethylene ester (8CI) (CA INDEX NAME)

L9 ANSWER 12 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN AN 1962:415017 CAPLUS
DN 57:15017
OREF 57:3016h-i,3017a-b
TI Light-sensitive layer for photomechar
IN Hepher, Martin; Wagner, Hans M
PA Kodak Ltd.
S0 4 pp.
DT Patent
LA Unavai). Light-sensitive layer for photomechanical reproduction Hepher, Martin; Wagner, Hans M. Kodak Ltd. 4 pp. Patent

Unavailable PATENT NO.

DATE APPLICATION NO. KIND DATE

DE 1079950 19600414 DE 1959-X36937 19590211
The use of 4,4'-diazidodibenzylideneacetone (I), 1,3-bis(p-azidophenyl)-2propen-1-one (II), and 1,2-bis(p-azidocinamoyloxy)-ethane (III) for the
preparation of lightsensitive layers for photomechanical reproduction is
described, p-HZNCEHACHO (6.1 g.), diazotized, treated with 3.5 g. NaN3 in
20 cc. H2O, kept 0.5 hr., and extracted with Et2O gave crude p-N3C6H4CHO

IV (7.4 g.) in 50 cc. EtcH treated with 0.6 g. NaOH in 10 cc. H2O, kept overnight in the dark, and filtered, the residue extracted with hot Me2CO,

the extract cooled gave I, yellow powder, decompose 156°. Similarly, 1B.5 g. p-HZNCGHAAC gave p-NZCGHAAC (V), m. 44° (EtCH). V (3.2 g.) in 25 cc. EtCH treated successively with 3 g. IV and 0.3 g. NaOH in 5 cc. H2O, kept 4 hrs., and filtered yielded II, orange needles, m. 119° (EtCH). p-HZNCGH4CH:CHCOZH, diszotized and treated with NaNZ, and the resulting p-N3CGH4CH:CHCOZH treated with SOC12 yielded p-N3CGH4CH:CHCOCH (VI), m. 63-5°. VI (4.2 g.) in 40 cc. CSHSN and 40 cc. HCONH2Z, added dropwise with stirring at room temperature to 0.6 g. (CHZOH) 2 in 10

CSHSN, kept overnight, concentrated, and poured into H2O yielded III, m. 123-4' (ECOH). A solution (100 cc.) of 27-84 cyclized latex in petroleum, 0.4 g. 1, and 900 cc. CZECI3 mixed, coated on a photogravure Cu plate, and the plate irradiated 45 sec. with a 125-w. Hg-vapor lamp at a distance of about 30 cm. under a transparent pos. master copy, immersed 30 sec. in a solution of 2 g. Waxoline (C.1. 42, 5108) in 100 cc. CZECI3, rinsed with H2O, and dried gave a neg. image of the transparency which protects in the etching of the Cu plate.
25433-99-2, Cinnamic acid, p-azido-, ethylene ester (preparation of) 25433-99-2 CAPUS 2-Propencic acid, 3-(4-azidophenyl)-, 1,2-ethanediyl ester (9CI) (CA INDEX NAME)

ΙT

orubber solution, 900 cc. CHC1:CC12, and 0.4 g. II is coated on a Cu plate, then dried. The plate is exposed for 45 sec. (in vacuum chase) in contact with a transparent line-engraving stereotype, by means of a Hg vapor lamp. The plate is then immersed for 30 sec. in CHC1:CC12, then in a solution of 2 g. Waxoline in 100 cc. CHC1:CC12, and finally washed in H2O and dried. For the reprinting of printed documents the photosensitive rubber layer is

L9	ANSWER 14 OF 15	CAPLUS (	COPYRIGHT 2	006 ACS on STN	
AN	1962:408963 CAPL				
DN	57:8963	,,			
OREE	57:1794b-c				
TI	Photomechanical 1:	iaht-sen:	sitive coat	ing	
IN	Hepher, Martin; W			•	
PA	Kodak Ltd.	,			
so	6 pp.				
DT	Patent				
LA	Unavailable				
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	GB 892811		19620328		19570418
AB				photoengraving resists	
		thograph:	ic printing	plates, contain an or	ganic
501	rent-soluble resin				
	and a light-sensi	tizing di	iaryl azide	the mol. of which inc	orporates a
				odibenzylideneacetone	(I),
	1,3-bis(4-azidophe				
	azidocinnamoyloxy	ethane.	Thus, a p	hotoen graving resist	is prepared from
				Valcolac cement 189 B)	
				e mixture is coated on	
				exposed under a line t	
				12 in. distance and t	
				dyeing the image in a	
				he plate is rinsed in	water. The
				an etching resist.	
ΙŢ	25433-99-2, Cinnar		, p-azido-,	ethylene ester	
	(for lithograph				
RN	25433-99-2 CAPLUS				
CN		3-(4-82	rdobveuAr) -	, 1,2-ethanediyl ester	(9CI) (CA
	INDEX NAME)				
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	<u></u>		!!		
ſ	_ II_cii=cii-c-o	—сн <sub>2</sub> −сн	12-0-C-CH	-a-1 )	
بار	<b>⋋</b> "			الم	
N3	~			~ \N3	

$$\bigcap_{N_3} \operatorname{CH} = \operatorname{CH} - \operatorname{C} - \operatorname{CH}_2 - \operatorname{CH}_2 - \operatorname{C} - \operatorname{CH} = \operatorname{CH} - \bigcap_{N_3}$$

10/772,286

Page 20

=> => d que 113 stat L10 STR

G1 Cy,Ak

G2 [@1], [@2], [@3], [@4], [@5], [@6], [@7]

Structure attributes must be viewed using STN Express query preparation.

L12 24 SEA FILE=REGISTRY SSS FUL L10

L13 3 SEA FILE=CAPLUS ABB=ON PLU=ON L12

=> d 1-3 bib abs hitstr

(Continued)

PAGE 1-A

PAGE 2-A

(Continued)

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L13 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2004:652667 CAPLUS
DN 141:175626
                                141:175626
Lightfast colorent and lightfast ink composition including the same
Lee, Kyung-Hoons Ryu, Seung-Hins Jung, Yeon-Kyoung
Samsung Electronics Co., Ltd., S. Korea
U.S. Pat. Appl. Publ., 14 pp.
CODEN: USXXCO
   DT Patent
LA English
FAN.CNT 1
PATENT NO.
                                                                                                                                                                    KIND DATE
                                                                                                                                                                                                                                                                                                  APPLICATION NO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                            DATE
733739-27-0P
RL: IMF (Industrial manufacture), TEM (Technical or engineered material use), PREP (Preparation), USES (Uses)
(lightfast colorant, lightfast colorant and lightfast ink composition including the same)
733739-27-0 CAPLUS
                                  /33/39-27-0 CAPUS

2-Propencic acid, 3-(4-methoxyphenyl)-, 4-[[(4',8'-diamino-9,9',10,10'-tetrahydro-9,9',10,10'-tetrahydro-9,9',10,10'-tetrahydro-9,9',10,10'-tetrahydro-9,9',10,10'-tetrahydro-9,9',10,10'-tetrahydro-9,9',10,10'-tetrahydro-9,9',10,10'-tetrahydro-9,9',10,10'-tetrahydro-9,9',10,10'-tetrahydro-9,9',10,10'-tetrahydro-9,9',10,10'-tetrahydro-9,9',10,10'-tetrahydro-9,9',10,10'-tetrahydro-9,9',10,10'-tetrahydro-9,9',10,10'-tetrahydro-9,9',10,10'-tetrahydro-9,9',10,10'-tetrahydro-9,9',10,10'-tetrahydro-9,9',10,10'-tetrahydro-9,9',10,10'-tetrahydro-9,9',10,10'-tetrahydro-9,9',10,10'-tetrahydro-9,9',10,10'-tetrahydro-9,9',10,10'-tetrahydro-9,9',10,10'-tetrahydro-9,9',10,10'-tetrahydro-9,9',10,10'-tetrahydro-9,9',10,10'-tetrahydro-9,9',10,10'-tetrahydro-9,9',10,10'-tetrahydro-9,9',10,10'-tetrahydro-9,9',10,10'-tetrahydro-9,9',10,10'-tetrahydro-9,9',10,10'-tetrahydro-9,9',10,10'-tetrahydro-9,9',10,10'-tetrahydro-9,9',10,10'-tetrahydro-9,9',10,10'-tetrahydro-9,9',10,10'-tetrahydro-9,9',10,10'-tetrahydro-9,9',10,10'-tetrahydro-9,9',10,10'-tetrahydro-9,9',10,10'-tetrahydro-9,9',10,10'-tetrahydro-9,9',10,10'-tetrahydro-9,9',10,10'-tetrahydro-9,9',10,10'-tetrahydro-9,9',10,10'-tetrahydro-9,9',10,10'-tetrahydro-9,9',10,10'-tetrahydro-9,9',10,10'-tetrahydro-9,9',10,10'-tetrahydro-9,9',10,10'-tetrahydro-9,9',10,10'-tetrahydro-9,9',10,10'-tetrahydro-9,9',10,10'-tetrahydro-9,9',10,10'-tetrahydro-9,9',10,10'-tetrahydro-9,9',10,10'-tetrahydro-9,9',10,10'-tetrahydro-9,9',10,10'-tetrahydro-9,9',10,10'-tetrahydro-9,9',10,10'-tetrahydro-9,9',10,10'-tetrahydro-9,9',10,10'-tetrahydro-9,9',10,10'-tetrahydro-9,9',10,10'-tetrahydro-9,9',10,10'-tetrahydro-9,9',10,10'-tetrahydro-9,9',10,10'-tetrahydro-9,9',10,10'-tetrahydro-9,9',10,10'-tetrahydro-9,9',10,10'-tetrahydro-9,9',10,10'-tetrahydro-9,9',10,10'-tetrahydro-9,9',10,10'-tetrahydro-9,9',10,10'-tetrahydro-9,9',10,10'-tetrahydro-9,9',10,10'-tetrahydro-9,9',10,10'-tetrahydro-9,9',10,10'-tetrahydro-9,9',10,10'-tetrahydro-9,9',10,10'-tetrahydro-9,9',10,10'-tetrahydro-9,9',10'-tetr
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L13 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2006 ACS on STN

ANSWER 2 OF 3 CAPLUS COPYRIGHT 2006 ACS on STN 2000:742065 CAPLUS 133:309572 Preparation of pharmaceutical compounds useful in oxidative stress and/or endothelial dysfunction cases Del Soldato, Piero Nicok S.A., Fr. PCT Int. Appl., 148 pp. CODEN: PIXXD2 Patent English CMT 1 DT Pat. LA English FAN.CNT 1 PATENT NO. 20000615 KIND DATE APPLICATION NO.

Absolute stereochemistry. Double bond geometry as shown.

L13 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2006 ACS on STN

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ANSWER 3 OF 3 CAPLUS COPYRIGHT 2006 ACS on STN 2000:742053 CAPLUS 133:310142 Synthesis, activity and formulations of pharmaceutical compounds for treatment of oxidative stress and/or endothelial dysfunction Del Soldato, Piero Nicox S.A., Fr. For Int. Appl., 159 pp. CODEN: PIXXO2 Patent English CNT 1 CNT 1
                          L13
AN
DN
TI
                               PA
50
DT Pat.
LA English
FAN.CNT 1
PATENT NO.
                                                                                                         English
CNT 1
PATENT NO.

XIND DATE APPLICATION NO.

DATE

APPLICATION NO.

DATE

APPLICATION NO.

DATE

APPLICATION NO.

DATE

VO 2000061537 A3 20010927

W: AL, AU, BA, BB, BG, BR, CA, CN, CU, CZ, DH, EE, GE, HR, HU, ID,
IL, IN, IS, JP, KP, KR, LC, LK, LR, LT, LV, MA, MG, MK, MN, MX,
NO, NZ, PL, RO, SG, SI, SX, SL, TR, TT, UA, US, UZ, VN, YU, ZA,
AM, AZ, BY, KG, KZ, MD, RU, TJ, TH

RS: GR, GH, KK, SL, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,
DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,
CG, CI, CH, GA, GN, GW, ML, MR, NE, SN, TD, TG

IT 1311924

B1 20020320 IT 1999-MI753 19990413

CA 2370412 AA 2001019 CA 2000-2370412 20000411

BR 2000009702 A 20020109 EP 2000-9502 20000411

BR 200009702 A 20020109 EP 2000-9502 200000411

BR 2AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, FT,
IE, SI, LT, LV, FI, RO
JP 2002541233 T2 20021009

RI: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, FT,
IN 2514267 A 20010091

RU 2237657 A 20041010 RU 2001-127576 20000411

RU 2237657 A 20041023 AU 2000-64001 20000411

RU 2237657 A 200100127 A 20011013 NO 2001-4927 20011010

NO 2001008127 A 20011013 NO 2001-4927 20011010

NO 2000-EP3224 W 20000411

VS 2001-295236 AS 20011015

MARARY 133:310142

COMPSS. AB-C-N(O)s and A-C1[N(O)s]-B1 or their salts [s is an integer 1]
JP 2002541233 T2 20021203 JP 2000-610814 20000411
NZ 514267 A 20040625 NZ 2000-610814 20000411
NZ 514267 A 20040625 NZ 2000-610267 20000411
AU 718989 B2 20041223 AU 2000-61021 20000411
AU 778989 B2 20041223 AU 2000-44001 20000411
AU 778989 B2 20041223 AU 2000-44001 20000411
AU 708987 B2 20011213 NZ 2001-9127 20011003
NZ 2001009127 A 2003101213 NZ 2001-9127 20011003
NZ 2001009127 A 20011213 NZ 2001-927 20011010
US 6659974 B1 200503122 US 2001-927 20011010
US 2005261242 A1 20051024 US 2004-24857 20041230

PRAI IT 1999-M1753 A 1990413
US 2001-292326 A3 2001015

US 2001-292326 A3 2001015

US 2001-292326 A3 2001015

OS MARPAT 133:310142
AB Compds. A-B-C-N(O)s and A-CI(N(O)s)-B1 or their salts [s is an integer 1 or 2, preferably s - 2; A is the radical of a drug and is such as to meet the pharmacol. tests reported in the description; C and C1 are two bivalent radicals; the precursors of the radicals B and B1 are such as to meet the pharmacol. test reported in the description were prepared for use as pharmacouticals. Thus, (S.S)-N-acetyl-3-(G-nethoxy-a-methyl-2-naphthalenylacetyl)cysteine 4-nitroxybutyl ester was prepared (NCK 2101) from naproxene and N-acetylcysteine in the first of 28 synthetic examples given. Pharmacol. test examples and tabular data are also given.

IT 301838-03-9P

RL: ADV (Adverse effect, including toxicity), BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SFN (Synthetic preparation); TRU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(synthesis, activity and formulations of pharmaceutical compds. for treatment of oxidative stress and/or endothelial dysfunction)
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ANSWER 3 OF 3 CAPLUS COPYRIGHT 2006 ACS on STN (Continued) 301838-03-9 CAPLUS 2-Propenoic acid, 3-{3-methoxy-4-{4-(nitrooxy}-1-oxobutoxy}phenyl]-, 2-{(25, 45)-4-{(3-amino-2, 3, 6-trideoxy-a-L-lyxo-hexopyranoxyl)oxy}-1, 2, 3, 4, 6, 11-hexahydro-2, 5, 12-trihydroxy-7-methoxy-6, 11-dioxo-2-naphthacenyl)-2-oxoethyl ester, (2E)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

PAGE 1-B

# => => d que l19 stt 'STT' IS NOT VALID HERE

=> d q	ue l19 sta	at				
L14	91	SEA	FILE=CAPLUS	ABB=ON	PLU=ON	"LEE KYUNG HOON"/AU
L15	40	SEA	FILE=CAPLUS	ABB=ON	PLU=ON	"RYU SEUNG MIN"/AU
L16	16	SEA	FILE=CAPLUS	ABB=ON	PLU=ON	"JUNG YEON KYOUNG"/AU
L17	121	SEA	FILE=CAPLUS	ABB=ON	PLU=ON	L14 OR L15 OR L16
L18	41	SEA	FILE=CAPLUS	ABB=ON	PLU=ON	L17 AND (COLORANT OR DYE OR
		INK)				
L19	25	SEA	FILE=CAPLUS	ABB=ON	PLU=ON	L18 AND (COLORANT OR DYE)

=> d 1-25 bib abs

```
ANSWER 1 OF 25 CAPLUS COPYRIGHT 2006 ACS on STN 2006:905160 CAPLUS Lightfast self-dispersible metal complex colorant and
 AN
TI
            self-dispersible liquid composition containing the colorant
Jung, Yeon Kyoung: Lee, Kyung Hoon: Ryu, Seung
 IN
           Samsung Electronics Co., Ltd., S. Korea
Repub. Korean Kongkae Taeho Kongbo, No pp. given
CODEN: KRXXA7
           Patent
            Korean
 FAN. CNT 1
            PATENT NO.
                                                       KIND DATE
                                                                                                   APPLICATION NO.
                                                                                                                                                        DATE
PI KR 2005046966
PRAI KR 2003-80824
AB Provided
                                                         Α
                                                                        20050519
                                                                                               KR 2003-80824
                                                                                                                                                        20031115
           KR 2003-90824 20031115
Provided are a self-dispersible metal complex colorant and a self-dispersible liquid composition containing the colorant which have light fastness and are excellent in long-term storage stability. The self-dispersible metal complex colorant is obtained by coordinating a ligand containing a self-dispersible moiety and a ligand aining
                                                                         20031115
```

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ANSWER 2 OF 25 CAPLUS COPYRIGHT 2006 ACS on STN 2006:896083 CAPLUS Light resistant metal complex colorant having light resistant molety and colorant coordinated with metal and liquid light resistant composition resistant composition yung, Yeon Kyoung Lee, Kyung Hoon; Ryu, Seung
IN
                   Min
Samsung Electronics Co., Ltd., S. Korea
Repub. Korean Kongkae Taeho Kongbo, No pp. given
CODEN: KRXXA7
                  Patent
                    Korean
FAN. CNT
                    PATENT NO.
                                                                                           KIND DATE
                                                                                                                                                                  APPLICATION NO.
                                                                                                                                                                                                                                                        DATE
PI KR 2005038860
PRAI KR 2003-74153
                                                                                             Α
                                                                                                                     20050429 20031023
                                                                                                                                                                 KR 2003-74153
                                                                                                                                                                                                                                                        20031023
                  RR 2003-74153
Provided is a light resistant colorant for printing, which comprises a light resistant moiety coordinated with a metal complex colorant and provides a liquid light resistant composition having excellent shelf stability and fastness including water resistance. The light resistant colorant is represented by the following formula 1 and is obtained by coordination of a light resistant moiety and colorant with a metal. In formula 1, the colorant is coordinated with the metal (Me) and comprises at least one szo group represented by the following formula 2, L represents a light resistant ligand that forms a coordination bond with the metal (Me), A represents a light resistant ligand that forms a coordination bond with the metal (Me) and no is a number of 1-3. In formula 2, each
of X1
                   and X2 independently represents OH, NH2, COOH or a C1-C2 alkoxy; and each of ring A and B represents a cycloalkenylene group.
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Page 24

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L19 ANSWER 3 OF 25 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2006:895082 CAPLUS
TI Antibacterial colorant having antibacterial moiety and colorant coordinated with metal and liquid antibacterial composition
IN Jung, Yeon Kyoung, Lee, Kyung Hoon, Ryu, Seung
Min
PA Samsung Electronics Co., Ltd., S. Korea
SO Repub. Korean Kongkae Taeho Kongbo, No pp. given
CODEN: KROKA7
DT Patent
LA Korean
FAN.CNI 1
PATENT NO. KIND DATE APPLICATION NO. DATE
PI KR 2005038859 A 20050429 KR 2003-74152 20031023
PRAI KR 2003-74152 20031023
PRAI KR 2003-74152 20031023
AB Provided is an antibacterial colorant for printing, which comprises an antibacterial moiety coordinated with a metal complex colorant and provides a liquid antibacterial composition having excellent shelf stability and fastness such as light resistance and water resistance. The antibacterial colorant is represented by the following formula 1 and is obtained by coordination of an antibacterial moiety and colorant with a metal. In formula 1, the colorant is coordinated with the metal [Me) and comprises at least one acc group represented by the following formula 2; Me represents a multivalent transmitton metal 1. Ir represents a ligand that forms a coordination bond with the metal [Me) and comprises at least coordination bond with the metal (Me) of comprises at least coordination bond with the metal (Me) and comprises at ligand that forms a coordination bond with the metal directly or via a linker (Y); and n is a number of 1-3, m is a number of 0-2, and m+n is a number of 1-3. In formula 2, each of X1 and X2 independently represents 0 Substituted or non-substituted C5-C30 cycloalkenylene group.
```

L19 ANSWER 4 OF 25 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2005:871243 CAPLUS
T XYlene metal complex colorant with self-dispersion, improving storage stability in using for long time
N Ham, Cheel) Jung, Su Aar Ryu, Seung Min
PA Samsung Electronics Co., Ltd., S. Korea
Repub. Korean Kongkee Taeho Kongbo, No pp. given
CODEN: KRXXA7
T Patent
LA Korean
FAN.CHI 1
RATENT NO. KIND DATE APPLICATION NO. DATE
PATENT NO. KIND DATE APPLICATION NO. DATE
PARI KR 2003-015207 A 20050221 KR 2003-53916 20030804
PFRAI KR 2003-53916 20030804
B Provided is a kylene metal complex colorant with self-dispersion
enabled which utilizes steric hindrance by bulky structure of metal
complex colorant with self-dispersion enabled is
represented by formula 1, in which XI and X2 are independently H or C1-C5
alkyl group; Y is -(CH2)r-radical where r is an integer of 0-6 and R2 is
independently H, aryl, silyl, C1-C6 alkyl group with aryl
group, M is a transition metal; Z is a neg. ion of colorant, and
WI to W are independently H, C1-C10,000 alkyl group or one compound or salt
selected from groups which are composed of -OA, -COOA, -CO-, -SO3A-,
-SO2AH,C2-, -SO2AH,C2-, -SO2AH,C3-, -SO2AH,C3-,

L19 ANSWER 7 OF 25 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2005:1289637 CAPLUS
N 144:24073
TI Ink composition containing amidic compound to minimize bleeding of colors of printed imagines
IN Lee, Jong-In, Ryu, Seung-Min
A Samsung Electronics Co., Ltd., S. Korea
SO U.S. Pat. Appl. Publ., 15 pp.
CODEN: USXXCO
DT Fatent
LA English
FARLCNT 1
PATENT NO. KIND DATE APPLICATION NO. DATE
KR 2005:16016 A 2005:1208 US 2005-109:109 2005:0
KR 2005:16016 A 2005:1208 US 2005-109:109 2005:0
KR 2005:14016 A 2005:1209 KR 2004-40901 2004:0
S MARPAT 144:24073
GI

$$X \xrightarrow{A} X \xrightarrow{B} X$$

AB Title ink composition includes a colorant, a solvent, and an amide compound (I), wherein RI, R2 and X are independently H, or alkyl, heteroalkyl, alkenyl, alkenyl, alkoxy, alylsulfoneamide, arylsulfoneamide, acylamino, alkylureido, arylureido, alkoxycarbonyl, alkoxycarbonyl, alkoxycarbonyl, alkoxycarbonyl, alkoxycarbonyl, alkoxycarbonyl, alkoxycarbonyl, alkoxycarbonyl, alkoxycarbonylamino, carbamoyl, sulfamoyl, sulfo and its salts, carboxyl and its salts, hydroxyalkyloxyalkyl, dielkylaminoslkyl, pyridylalkyl, pyridyl, imidazolyl, hydrazine, hydrazone, pyridylakyl, aryl, arylalkyl, heteroaryl, heteroarylalkyl, heteroarylalkyl, heteroarylalkyl, heteroarylalkyl, heteroarylalkyl, heteroarylalkyl, heteroarylalkyl, heteroarylalkyl, sold y on the composition in integer of 0 to 8 and 25m+nSs. Thus, carbon black (CABOT-300) 4.0, uracil 6.0, water 66.0, diethylene glycol 8.0, trimethylolpropane 9.0, and glycerin 8.0 were stirred for ≥30 min, and then filtered through a 0.45 µm filter to produce an ink composition showing storage at 60° for 2 mo with no precipitation, no nozzle clogging observed, rub-fastness OD value >95, and no color mixing occurred.

L19 ANSWER 6 OF 25 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2006:316672 CAPLUS
IN 144:352480

TI Self-dispersible colorant and ink composition
containing the same
IN Jung, Yeon-Kyoung; Ryu, Seung-Min
PA Samsung Electronics Co., Ltd., S. Korea

U.S. Pat. Appl. Publ., 11 pp.
CODEN: USXXCO
DT Patent
LA English
PATENT NO. KIND DATE APPLICATION NO. DATE

PATENT NO. KIND DATE APPLICATION NO. DATE

PATENT NO. COMPOSITION OF A 2004-064 SERVICE AND A 2016-064 SERVICE A

19 N N I N A O	ANSWER 8 OF 25 CAP 2005:1265094 CAPLU 143:479506 Ink set for inkjet Jung, Yeon-Kyoungs Samsung Electronics U.S. Pat. Appl. Pub CODEN: USXXCO Patent English	s recordii Ryu, Sei Co., Li	ng apparatus ing-Min id., S. Kore		5 on STN	
AN.	CNT 1					
	PATENT NO.	KIND	DATE	API	PLICATION NO.	DATE
1	US 2005263035	A1	20051201	us	2005-105489	20050414
-	KR 2005112298		20051130		2004-37250	20040525
	JP 2005336489		20051208		2005-152849	20050525
RAT	KR 2004-37250	A	20040525	٠.	2000 102045	20000020
5	MARPAT 143:479506		20040020			
В	Title ink set inclu	des a hi	lack ink com	2041	tion comprising a	
	first colorant, wat					
	ink composition com					
					k dispersion in aque	ens solution
٥,	Decome diny! conor:	11125,	Lu. carbon .		ox dispersion in aqui	301401011
٠,	water 59.8. 1.1'-ox	vbis(2-e	thoxy) ethan	. 4.	diethylene glycol	5. ethvlene
					or ≥30 min and filte	
					nk composition Bes	
					ethoxy) ethane 4, gly	
	ethylene glycol 10,	Tween	20 1 g were r	nixe	d for ≥30 min and	
	filtered through a	0.45 um	filter to a	ve	an vellow ink	
					ink above to form as	1
					(Y), line sharpness	
	for both black and	vellow a	nd deares of	f b	leeding between black	and vellow
	O.	,	avgree of		DISC	jellow

ΡI

```
ANSWER 9 OF 25 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2005:546552 CAPLUS
DN 143:79708
TI Block copolymeric dispersant for pigment particle in aqueous system, and ink composition comprising the same
IN Ham, Cheol Ryu, Seung-Min, Jung, Su-Aa
PA Samsung Electronics Co., Ltd., S. Korea
SO U.S. Pat. Appl. Publ., 11 pp.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 1
PATENT NO. KIND DATE APPLICATION NO. PATE
                                                                                                                                                      APPLICATION NO.
                   PATENT NO.
                                                                                     KIND
                                                                                                           DATE
                                                                                                                                                                                                                                      DATE
```

PALENT NO.

PI US 2005132931 Al 20050623 US 2004-922 20041202

KR 2005065713 A 20050650 US 2004-922 20041203

CN 1654115 A 20050650 CN 2003-95526 20031223

CN 1654115 A 20050670 CN 2004-10103387 20041223

PRAI KR 2003-95526 A 20050707 JP 2004-373757 20041224

PRAI KR 2003-95526 A 20031223

AB A dispersant having excellent adsorption to hydrophobic particles and an ink composition comprising a hydrophobic moiety having a hydrophobic substituent attached to a terminal end of the hydrophobic moiety. Thus, a He methacrylate/methacrylate

L19 AN	ANSWER 10 OF 25 2005:408845 CAPI		COPYRIGHT 20	06 ACS on STN	
DN	142:431697				
TI	Ink compositions	containi	no amidea, c	olorants, and	
	solvents		.,		
IN	Lee, Jong-In; Ryu	. Seung-I	Min: Jung. S	u-Aa	
PA					
50	U.S. Pat. Appl. F				
	CODEN: USXXCO		•		
DT	Patent				
LA	English				
FAN.	CNT 1				
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PΙ	US 2005098063		20050512	US 2004-964729	20041015
	KR 2005045736		20050517	KR 2003-79907	20031112
	JP 2005146283		20050609	JP 2004-329791	20041112
	KR 2003-79907		20031112		
os					
AB	(R1-4 = H, alkyl, solvent. The ami composition decre	etc., o	r R3 and R4 und and the	ing an amide compound form a ring), a color polyhydric alc. in th coloring agents and i	ring agent and . ne ink
adhe	sion				
	images, and impro provide good cold improves the qual storage stability	ving the r fastner ity of the Thus,	water fastn ss on papers he printed i	ding between colors of ess and dry and wet : . The ink composition mage, and also has go position can be wide! inting	rub fastness to on also ood long-term
					+1.00
		tile pri			
manu	inks, paints, tex	tile pri	noing, paper	munoracouring, coom	
manu		-	ncing, paper	manaracouring, coom	

L19	ANSWER 11 OF 25 CA	APLUS (	COPYRIGHT 20	006 ACS on STN	
AN	2005:281385 CAPLUS	3			
DN	142:337956				
TI	Preparing self-disc	ersible	colorina a	gent using Lewis acids	and
				the coloring agent	
IN	Lee, Jong-In; Ryu,				
PA	Samsung Electronics			o ne	
50	U.S. Pat. Appl. Pub				
30	CODEN: USXXCO	···, , ,	pp.		
DT	Patent				
LA	English				
	CNT 1				
FAN.					
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
_					
PΙ	US 2005066856	A1	20050331		20040827
	KR 2005030458	Α	20050330		20030926
	CN 1618898	A	20050525	CN 2004-10082589	20040921
	JP 2005105271	A2	20050421	JP 2004-280072	20040927
PRAI	KR 2003-66947	Α	20030926		
OS	MARPAT 142:337956				
AB	A self-dispersible	coloris	ng agent (co	loring agent-LR1) is p	repared by
				o a coloring agent thr	
				ide XLR1 and the color	
				ere L = single bond or	
	adpact confed of guan	ing cl ca	ceu C1-20 al	kyl group containing a	uha cobut 116

substituted or unsubstituted C1-zv alkyl group containing a hydrophilic group,
a substituted or unsubstituted C6-C20 aryl group containing a hydrophilic group, as substituted C2-C20 heteroaryl group containing a hydrophilic group, and a substituted C2-C20 arylalkyl group containing a hydrophilic group, X = F, Br, I and C1, conveniently through a 1-step process. The ink composition containing the self-dispersible coloring agent provides effective long-term storage stability and dispersion stability using a 1-step process. A typical ink composition contained self-dispersible C black 4.0, H2O 77.0, diethylene glycol 3.0, ethylene glycol 8.0, and glycerin 8.0 g.

L19	ANSWER 12 OF 25	CAPLUS	COPYRIGHT 20	06 ACS on STN	
AN	2005:215976 CAPLU	JS			
DN	142:299405				
TI	Metal complex cold	orants a	nd colorant	compositions with	
	good storageabilit	y and 1	ight and wat	er resistance	
IN	Jung, Yeon-Kyoungs	Ryu, S	eung-Min: Le	e,	
	Kyung-Hoon				
PA	Samsung Electronic	s Co.,	Ltd., S. Kor	ea	
so	Jpn. Kokai Tokkyo	Koho, 2	4 pp.		
	CODEN: JKXXAF				
DT	Patent				
LA	Japanese				
FAN.	CNT 1				
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2005060698	A2	20050310		20040809
	KR 2005017755	A	20050223		20030808
	US 2005059813	A1	20050317	US 2004-912544	20040806
PRAI	KR 2003-55022	A	20030808		
os	MARPAT 142:299405				
GI					

$$\begin{array}{c|c} \text{colorant} & J & \lambda^1 - N & \lambda^2 \\ & \downarrow & & \downarrow \\ & \chi^1 & M & \chi^2 \\ & \downarrow_{L_D} \end{array}$$

The present invention relates to metal complex colorants I, wherein colorant = colorant residues A1, A2 = C2-30 (un) substituted alkenyl containing >1 double bond, which is a moiety forming conjugates with azo groups X1, X2 = hydroxy, C1-4 alkoxy, carboxy, or (un) substituted aminos M = multivalent metals L = neutral or anionic ligands J = 1 igands and n = 1-3 integer. Thus, 36.5 g Acid Red 4 and 31.5 g azo compound were reacted in the presence of concentrated sulfuric acid, tad

ted with cobalt acetate tetrahydrate at 100° to give a metal complex colorant, 4 g of which was mixed with water 77, iso-Pr alc. 3, ethylene glycol 10, and glycerin 6 g to give an ink composition showing good long term storage stability and light and water resistance.

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L19 ANSWER 13 OF 25 CAPLUS COPYRIGHT 2006 ACS on STN AN 2005:209913 CAPLUS
AN
DN
TI
          142:299572
         142:299572
Self-dispersible metal complex colorants and colorant compositions
Lee, Kyung-Hoon, Ryu, Seung-Min, Jung, Yeon-Kyoung
IN
         Yeon-Kyoung Samsung Electronics Co., Ltd., S. Korea Jpn. Kokai Tokkyo Koho, 28 pp. CODEN: JKXXAF
so
DT Patent
LA Japanese
FAN.CNT 1
         PATENT NO.
                                             KIND
                                                          DATE
                                                                                 APPLICATION NO.
                                                                                                                            DATE
                                              A2
A
A1
                                                          20050310
20050223
20050310
20030809
                                                                                 JP 2004-232714
KR 2003-55214
US 2004-912562
        JP 2005060701
KR 2005017804
US 2005054841
                                                                                                                            20040809
                                                                                                                             20040806
         KR 2003-55214
MARPAT 142:299572
              -a1--n--n--
```

AB Complexes I [Z = colorant residue: Al, A2 = moiety capable of forming conjugation with azo group, where ≥1 of Al and A2 containing (un) substituted C2-30 alkylene bearing ≥1 double bend; X1, X2 = CH, C1-4 alkoxy, carboxy, (un) substituted amino group: H = multivalent transition metal: L = neutral or anionic ligand; T = mono-/poly-substituted hydrophilic group: J = linking group: n = 1-3] are prepared yater-thinned inks containing I showed good storage stability and gave images with good light and water resistance.

L19 ANSWER 15 OF 25 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2005:122841 CAPLUS
N 142:200265
TI Self-dispersible bipyridine-based metal complex and ink composition comprising the complex
COMPOSITION OF THE PROPERTY OF THE PROPE

ANSWER 14 OF 25 CAPLUS COPYRIGHT 2006 ACS on STN 2005:123219 CAPLUS 142:200267 DN TI Bipyridine-based metal complex and ink composition comprising Lee, Jong-In: Ryu, Seung-Hin: Jung, Su-Aa Samsung Electronics Co., Ltd., S. Korea U.S. Pat. Appl. Publ., 17 pp. CODEN: USXXCO PA SO DΤ Patent English LA En PATENT NO. DATE KIND DATE APPLICATION NO. PI US 2005033053 KR 2005015855 JP 2005060699 PRAI KR 2003-55021 A1 A A2 US 2004-902890 20050210 20040802 20050221 KR 2003-55021 JP 2004-232528 20050310 20040809 20030808 KR 2003-55021 A 20030808

MARPART 122:200267

A bipyridine-based metal complex includes a complex of bipyridine-based ligands and metals of 21 Groups III-XIV. The bipyridine-based metal complex may be used alone (0.1-1.0 parts), as well as in combination with other coloring agents in inks.

ANSWER 16 OF 25 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2004:1036193 CAPLUS

DN 142:24670

T1 Lightfast additive having UV-absorbing moiety and ink composition

IN Lee, Kyung-Hoon, Ryu, Seung-Hin; Jung, Yeon-Kyoung

FA Samsung Electronics Co., Ltd., S. Korea

SU.S. Pat. Appl. Publ., 17 pp.

CODEN: USKXCO

Patent

LA English
FRAN.CHT 1

PATENT NO. KIND DATE APPLICATION NO. DATE

FRANCHT 1

PATENT NO. KIND DATE APPLICATION NO. DATE

KR 2004101865 A 20041202 US 2004-851161 20040524

KR 2004101865 A 2004103 KR 2003-33848 20030527

JP 2005002111 A2 20050106 JP 2004-158268 20040527

CN 1590357 A 20050039 CN 2004-1085266 20040527

PRAI KR 2003-33848 A 20030527

SMARPAT 142:24670

AB A lightfast additive has a benzophenone moiety for lightfastness and a moiety for westability and the ability to stabilize a colorant, where the 2 moieties are covalently bonded. The lightfast additive may exhibit effective UV light absorption capacity, effective wettability, and an ability to stabilize a colorant. The ink composition of water, colorant and using the light fast additive has an improved lightfastness and long-term storage stability. Thus, 8.4 g of the 2-hydroxy-4-(4-carboxy) phenyloxybenzophenone (preparation given) and EtOAc

Were stirred to dissolve the benzophenone compound, 2.6 g glycerol was added, 20 mL of concentrate H2SO4 was slowly added and refluxed for 212 h in the preparation of benzophenone derivative 1-PhCO-2-(CH)CGHJ-4
OCGHCOCCHCHCHOIN CH2OH, and suitable for mixing [8.0 g) with C.1. Direct Black 9 4.0, water 77.0, iso-PrOH 3.0, and ethylene glycol 8.0 g.

```
L19 ANSWER 17 OF 25 CAPLUS COPYRIGHT 2006 ACS ON STN AN 2004:779905 CAPLUS DN 141:297361
 AN
DN
TI
               141:29/351
Lightfast colorant and lightfast ink composition
including the same
Lee, Kyung-hoon; Ryu, Seung-min; Jung,
Yaon-kyoung
 IN
              Samsung Electronics Co., Ltd., S. Korea U.S. Pat. Appl. Publ., 22 pp. CODEN: USXXCO
              Patent
English
CNT 1
  DT
  FAN. CNT
PATENT NO. KIND
PI US 2004182279 A1
KR 2004083179 A
PRAI KR 2003-17746 A
OS MARPAT 141:287361
AB A lightfar
                PATENT NO.
                                                                       KIND DATE
                                                                                                                               APPLICATION NO.
                                                                                                                                                                                                   DATE
                                                                                             20040923
                                                                                                                               US 2004-802949
KR 2003-17746
                                                                                                                                                                                                    20040318
                                                                                             20041001
20030321
OS MARPAT 141:297361

AB A lightfast colorant and a lightfast ink composition include a lightfast colorant that is derived by covalently binding a benzophenone derivative and a conventional colorant and that imparts effective lightfastness and long-term storage stability to an ink composition that is prepared with the same. A typical dye was manufactured by reacting 8.3 g
2-hydroxy-4-(4-carboxyphenoxy)benzophenone 8

h in DMSO with 3 g SOC12, adding 12.3 g C.I. Acid Yellow 23, and heating 8 h at 80°.
```

```
ANSWER 18 OF 25 CAPLUS COPYRIGHT 2006 ACS on STN 2004:681260 CAPLUS 141:215358
 AN
DN
TI
IN
            141:215358
Organic electroluminescent device
Seo, Jeong Daer Kim, Hee Jungs Lee, Kyung Hoons Oh, Hyoung Yuns
Kim, Myung Seoph Park, Chun Gun
LG Electronics Inc., S. Korea
U.S. Pat. Appl. Publ., 19 pp.
CODEN: USKXCO
 PA
50
DT Patent
LA English
FAN.CNT 1
              PATENT NO.
                                                                                                                   APPLICATION NO.
                                                                 KIND DATE
                                                                                                                                                                                DATE
                                                                    A1
A2
A3
            US 2004161633
WO 2004075603
WO 2004075603
                                                                                   20040819
20040902
20041111
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                                                                                                                    WO 2004-KR342
            CN 1751398 A 20060322 CN 2004-80001645 20040219
JP 2006518545 T2 20060810 JP 2006-500648 20040219
KR 2005095653 A 20050929 KR 2005-715181 20050818
PRAI KR 2003-10393 A 20030219
W0 2004-KR342 W 20040219
OS MARPAT 141:215358
B Organic electroluminescent devices including a substrate, first and second electrodes, a light-emitting layer formed between the first electrode and the second electrode, and a hole-blocking layer formed between the light-emitting layer and the second electrode are described in which the hole-blocking layer is an anthracene derivative with substituents at the 9 and
              10 positions, ≥1 the substituents being selected from a (un)substituted aromatic groups, heterocyclic groups, aliphatic groups, halogens, and H.
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ANSWER 19 OF 25 CAPLUS COPYRIGHT 2006 ACS on STN 2004:681259 CAPLUS 141:215357 141:215357 CAPLUS 141:2
DT Pate.
LA English
FAN.CNT 1
PATENT NO.
2004161632
                                                                                                   CNT 1

WE 2004161652 A1 20040819 US 2004-779874 20040218

WO 2004075604 A2 20040802 WO 2004-XR343 20040219

WO 2004075604 A3 20041111

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, EW, BY, BZ, CA, CH, CM, CC, CC, CD, ED, EW, DM, DZ, EC, EE, EG, ES, FI, GB, GB, GE, GH, GH, GH, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LY, MA, MD, MG, MK, MM, MM, MK, MA, NA, NI, RY: EW, GH, GH, CH, CR, DE, DK, EE, ES, FI, FR, GB, GB, HU, IE, IT, LU, MC, ML, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GG, GW, ML, MR, NE, SN, TD, TG

EP 1595295 A2 20051116 EP 2004-712771 20040219

EP 1575400 A 2006022 CN 2004-712771 20040219

KR 2005095652 A2 2005010 JP 2006-500649 20040219

KR 2005095652 A 2006010 JP 2006-500649 20040219

KR 2005095652 A 2005029 KR 2005-715180 20050818

KR 2003-01394 A 20050219

WO 2004-KR343 Ormal a services are described which comprise a substrate; a first electrode formed on the substrate; an emission layer formed over the first electrode and having a first (e.g., green) emission area, a second (e.g., red) emission area, and a third (e.g., blue) emission area; a hole-blocking layer formed on the emission layer, the hole-blocking layer formed on the mission layer, the hole-blocking layer formed on the emission layer, the hole-blocking layer. Methods for fabricating the devices entailing sequential formation of the layers are also described.
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US 2004-779874
WO 2004-KR343
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ANSWER 20 OF 25 CAPLUS COPYRIGHT 2006 ACS on STN 2004:652667 CAPLUS 141:175626 Lightfast colorant and lightfast ink composition including the same Lee, Kyung-Hoon, Ryu, Seung-Min, Jung, Yeon-Kyoung Samsung Electronics Co., Ltd., S. Korea U.S. Pat. Appl. Publ., 14 pp. CODEN: USXXCO Patent English CTT 1
LA En
                         CNT 1
PATENT NO.
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                     PATENT NO.

US 2004158050 Al 20040812 US 2004-772286 20040206

KR 2004072071 A 20040818 KR 2003-7996 20030208

JP 2004238531 A2 20040826 JP 2004-32536 20040209

KR 2033-7996 A 20030208

MARPAR 141:175626

A lightfast colorant and a lightfast ink composition including the lightfast colorant utilize a lightfast colorant that is derived by covalently binding a cinnamate derivative and a conventional colorant. The lightfast colorant improves storage stability as well as lightfast colorant improves storage stability as well as lightfastness when added to an ink composition A lightfast colorant was prepared from 4-carboxyphenyl-4'-methoxycinnamate and C.I. direct black 168.
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20030208
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L19 ANSWER 21 OF 25 CAPLUS COPYRIGHT 2006 ACS on STN AN 2004:451644 CAPLUS DN 141:8729
 AN
DN
TI
                 141:8729

Water-soluble, antimicrobial active polymer and ink composition comprising the same
Lee, Kyung-Hoon Ryu, Seung-Hin; Jung,
Yeon-Kyoung
Samsung Electronics Co., Ltd., S. Korea
U.S. Pat. Appl. Publ., 10 pp.
CODEN: USXXCO
 IN
 DT
                  Patent
 LA English
FAN.CNT 1
                  ENT 1
PATENT NO.
                                                                                            KIND DATE
                                                                                                                                                                    APPLICATION NO.
                                                                                                                                                                                                                                                           DATE
                                                                                               A1
A
PI US 2004106698 Al 20040603 US 2003-647144 20030825

KR 2004019571 A 20040306 KR 2002-51157 20020828

PRAI KR 2002-51157 A 20020828

B A water-soluble, antimicrobial active polymer and an ink composition are prepared by coupling an antimicrobial active silane compound to a branch of polyminyl alc. An excellent antimicrobial effect is provided without affecting the properties of the ink composition that includes the polymer. The polymer is added to the ink composition in an amount of 1 to 10 parts by weight based on 100 parts by weight of the ink composition

The ink composition provides extended storage stability due to no coagulation, effective antimicrobial effect even in a printed picture, and no irritation to human skin.
                                                                                                                      20040603
20040306
20020828
                                                                                                                                                                   US 2003-647144
KR 2002-51157
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L19 ANSWER 22 OF 25 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2004:451324 CAPLUS
DN 141:8655
T Functional additive having UV-absorbing substituent and ink composition containing the additive
IN Jung, Yeon-Kyoung, Ryu, Seung-Hin
PA Samsung Electronics Co., Ltd., S. Korea
SO U.S. Pat. Appl. Publ., 11 pp.
CODEN: USXXCO
DT Patent
LA English
FANLONT 1
PATENT NO. KIND DATE APPLICATION NO. A1 20040503 A 20040510 A 20040818 A 20040818 A 20021114 PATENT NO. PATENT NO. KIND DATE APPLICATION OF THE PATENT NO. KIND DATE APPLICATION OF THE PATENT NO. CONTROL OF THE PATENT NO. CONTR APPLICATION NO. DATE

resistance, wettability and stabilizes a colorant and does not require an addni. light-resistant agent. An example stabilizer was 2-Meoi-0.0-CHIGHIZER (Me) COZENZER (GH) GIZER)

AN 2004;330574 CAPLUS 100:322219 TI Dyeing fibers using mugwort for dyed fiber products useful for health ar fiber products therefrom IN Lee, Kyung Hoon S. Korea SO Jpn. Kokai Tokkyo Koho, 6 pp. CODEN: JXXXAF  DT Patent LJ Japanese FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE  PI JP 2004124299 A2 20040422 JP 2002-289576 20021002 PRAI JP 2002-289576 20021002 AB The dyed fibers are prepared by the steps comprising the steps of (a) preparing a mugwort dye bath by adding mugwort powders or mugwort exts. to H2O, (b) heating the bath at 50-100° and mixing fibers in the bath for 10-30 min, and (c) washing and drying the fibers. Fiber products comprise fibers dyed by the above steps. The dyed fiber products are especially useful for emale undergarments. A cotton female pantie was dyed in aque suspension containing 200 g mugwort powder with particle diameter 500 µm in 10  L H2O for 30 min at 290°, dried by sunlight, treated with a liquid containing 100 g polyurethane in 20 L H2O for 5 min at 100°, and	L19	ANSWER 23 OF 25		COPYRIGHT 20	06 ACS on STN	
TI Dyeing fibers using mugwort for dyed fiber products useful for health are fiber products therefrom  IN Lee, Kyung Hoon  A S. Korea  Jpn. Kokai Tokkyo Koho, 6 pp. COURLY  The Patent  LA Japanese  FAN.CN1 I  PATENT NO. KIND DATE APPLICATION NO. DATE  FATENT NO. KIND DATE APPLICATION NO. DATE  PATENT NO. BARD STORM S			JS			
fiber products therefrom  IL Lee, Kyung Hoon  A S. Korea  50 Jpn. Kokai Tokkyo Koho, 6 pp.  CODEN: JECKAF  DT Fatent  L Japanese  FAN.CNT 1  PATENT NO.  KIND DATE APPLICATION NO.  DATE  PATENT NO.  FI JP 2004124299 A2 20040422 JP 2002-289576 20021002  PRAI JP 2002-289576 20021002  AB The dyed fibers are prepared by the steps comprising the steps of (a)  preparing  a muywort dye bath by adding mugwort powders or mugwort exts. to  H2O, (b) heating the bath at 50-100° and mixing fibers in the bath  for 10-30 min, and (c) washing and drying the fibers. Fiber products  comprise fibers dyed by the above steps. The dyed fiber products are  specially  useful for emale undergarments. A cotton female pantie was dyed in aque  suspension containing 200 g mugwort powder with particle diameter 500 µm  in 10  L H2O for 30 min at ≥90°, dried by sunlight, treated with a  liquid containing 100 g polyurethane in 20 L H2O for 5 min at 100°, and	DN	140:322819				
PA S. Korea  S. Jon. Kokai Tokkyo Koho, 6 pp.  CODEN: JKXKAF  T Patent  J Japanese  FAN.CNT 1  PATENT NO.  KIND DATE APPLICATION NO.  DATE  PATENT NO.  PATENT NO.  PATENT NO.  KIND DATE APPLICATION NO.  DATE  PATENT NO.  PATENT NO.  PATENT NO.  APPLICATION NO.  DATE  PATENT NO.  PATENT NO.  APPLICATION NO.  DATE  PATENT NO.  DATE  PATENT NO.  APPLICATION NO.  DATE  PATENT NO.  DATE  PATENT NO.  APPLICATION NO.  DATE  PATENT NO.  DATE  PATENT NO.  DATE  PATENT NO.  DATE  APPLICATION NO.  DATE  PATENT NO.  DATE	TI			rt for dyed	fiber products usefu	l for health and
SO Jpn. Kokai Tokkyo Koho, 6 pp. CODEN: JEXCAF  DT Patent L Japanese FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE PI JP 2004124299 A2 20040422 JP 2002-289576 20021002 PRAI JP 2002-289576 20021002 AB The dyed fibers are prepared by the steps comprising the steps of (a) preparing     a magwort dye bath by adding magwort powders or magwort exts. to H2O, (b) heating the bath at 50-100° and mixing fibers in the bath     for 10-30 min, and (c) washing and drying the fibers. Fiber products     comprise fibers dyed by the above steps. The dyed fiber products are especially     useful for emale undergarments. A cotton female pantie was dyed in aque     suspension containing 200 g magwort powder with particle diameter 500 µm in 10  L H2O for 30 min at ≥90°, dried by sunlight, treated with a     liquid containing 100 g polyurethane in 20 L H2O for 5 min at 100°, and	IN	Lee, Kyung Hoon				
CODEN: JECKAF  T Patent LA Japanese FAN.CHT 1 PATENT NO. KIND DATE APPLICATION NO. DATE  PATENT NO. KIND DATE APPLICATION NO. DATE  PI JP 2004124299 A2 20040422 JF 2002-289576 20021002  PRAI JP 2002-289576 20021002  AB The dyed fibers are prepared by the steps comprising the steps of (a) preparing a magwort dye bath by adding magwort powders or magwort exts. to  HZO, (b) heating the bath at 50-100° and mixing fibers in the bath for 10-30 min, and (c) washing and drying the fibers. Fiber products comprise fibers dyed by the above steps. The dyed fiber products are suspension containing 200 g magwort powder with particle diameter 500 µm in 10  L HZO for 30 min at ≥90°, dried by sunlight, treated with a liquid containing 100 g polyurethene in 20 L HZO for 5 min at 100°, and	PA	S. Korea				
IA Japanese FAN.CNT 1 PATENT NO.  FIND NO.  FAN. CNT 2  PATENT NO.  KIND DATE  APPLICATION NO.  DATE  PATENT NO.  FIND P2004124299  A2 20040422 JF 2002-289576  20021002  PRAI JF 2002-289576  20021002  AB The dyed fibers are prepared by the steps comprising the steps of (a) preparing  a magwort dye bath by adding magwort powders or magwort exts. to  HZO, (b) heating the bath at 50-100° and mixing fibers in the bath  for 10-30 min, and (c) washing and drying the fibers. Fiber products  comprise fibers dyed by the above steps. The dyed fiber products are  suspension containing 200 g magwort powder with particle diameter 500 μm  in 10  L HZO for 30 min at ≥90°, dried by sunlight, treated with a  liquid containing 100 g polyurethane in 20 L HZO for 5 min at 100°, and	SO	Jpn. Kokai Tokkyo CODEN: JKXXAF	Koho, 6	pp.		
FAN.CMT I  PATENT NO. KIND DATE APPLICATION NO. DATE  PI JP 2004124299 A2 20040422 JP 2002-289576 20021002  PRAI JP 2002-289576 20021002  AB The dyad fibers are prepared by the steps comprising the steps of (a) preparing  preparing  A mmywort dye bath by adding mmywort powders or mmywort exts. to  A 20, (b) heating the bath at 50-100° and mixing fibers in the bath for 10-30 min, and (c) washing and drying the fibers. Fiber products comprise fibers dyed by the above steps. The dyed fiber products are especially useful for emale undergarments. A cotton female pantie was dyed in aque suspension containing 200 g mmywort powder with particle diameter 500 µm in 10  L H20 for 30 min at ≥90°, dried by sunlight, treated with a liquid containing 100 g polyurethene in 20 L H20 for 5 min at 100°, and	DT	Patent				
FAN.CMT 1 PATENT NO.  KIND DATE APPLICATION NO. DATE  P1 JP 2004124299 A2 20040422 JP 2002-289576 20021002  PRAI JP 2002-289576 20021002  AB The dyed fibers are prepared by the steps comprising the steps of (a) preparing  manywort dye bath by adding mugwort powders or mugwort exts. to  H2O, (b) heating the bath at 50-100° and mixing fibers in the bath for 10-30 min, and (c) washing and drying the fibers. Fiber products comprise fibers dyed by the above steps. The dyed fiber products are especially useful for emale undergarments. A cotton female pantie was dyed in aque suspension containing 200 g mugwort powder with particle diameter 500 µm in 10  L H2O for 30 min at ≥90°, dried by sunlight, treated with a liquid containing 100 g polyurethene in 20 L H2O for 5 min at 100°, and	LA	Japanese				
PI JP 2004124299 A2 20040422 JP 2002-289576 20021002  PRAI JP 2002-289576 20021002  AB The dyed fibers are prepared by the steps comprising the steps of (a) preparing a mugwort dye bath by adding mugwort powders or mugwort exts. to  H20, (b) heating the bath at 50-100° and mixing fibers in the bath for 10-30 min, and (c) washing and drying the fibers. Fiber products are especially useful for emale undergarments. A cotton female pantie was dyed in aque suspension containing 200 g mugwort powder with particle diameter 500 µm in 10  L H20 for 30 min at ≥90°, dried by sunlight, treated with a liquid containing 100 g polyurethane in 20 L H20 for 5 min at 100°, and	FAN.					
PI JP 2004124299 A2 20040422 JP 2002-289576 20021002 PRAI JP 2002-289576 20021002 AB The dyed fibers are prepared by the steps comprising the steps of (a) preparing a mayort dye bath by adding mayort powders or magwort exts. to H2O, (b) heating the bath at 50-100° and mixing fibers in the bath for 10-30 min, and (c) washing and drying the fibers. Fiber products comprise fibers dyed by the above steps. The dyed fiber products are suspension containing 200 g mayort powder with particle diameter 500 µm in 10 L H2O for 30 min at 290°, dried by sunlight, treated with a liquid containing 100 g polyurethane in 20 L H2O for 5 min at 100°, and		PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PRAI UP 2002-289576 20021002  AB The dyed fibers are prepared by the steps comprising the steps of (a) preparing a mangwort dye bath by adding mugwort powders or magwort exts. to H2O, (b) heating the bath at 50-100° and mixing fibers in the bath for 10-30 min, and (c) washing and drying the fibers. Fiber products comprise fibers dyed by the above steps. The dyed fiber products are especially useful for emale undergarments. A cotton female pantie was dyed in aque suspension containing 200 g magwort powder with particle diameter 500 µm in 10  L H2O for 30 min at ≥90°, dried by sunlight, treated with a liquid containing 100 g polyurethene in 20 L H2O for 5 min at 100°, and						
PRAI JP 2002-289576  20021002  AB The dyed fibers are prepared by the steps comprising the steps of (a) preparing a mugwort dye bath by adding mugwort powders or mugwort exts. to H2O, (b) heating the bath at 50-100° and mixing fibers in the bath comprise fibers dyed by the above steps. The dyed fiber products are suspension containing 200 g mugwort powder with particle diameter 500 µm in 10  L H2O for 30 min at >90°, dried by sunlight, treated with a liquid containing 100 g polyurethane in 20 L H2O for 5 min at 100°, and	ΡI	JP 2004124299	A2	20040422	JP 2002-289576	20021002
preparing  a magwort dye bath by adding magwort powders or magwort exts. to  H2O, (b) heating the bath at 50-100° and mixing fibers in the bath for 10-30 min, and (c) washing and drying the fibers. Fiber products comprise fibers dyed by the above steps. The dyed fiber products are especially useful for emale undergarments. A cotton female pantie was dyed in aque suspension containing 200 g magwort powder with particle diameter 500 µm in 10  L H2O for 30 min at ≥90°, dried by sunlight, treated with a liquid containing 100 g polyurethane in 20 L H2O for 5 min at 100°, and	PRAI	JP 2002-289576		20021002		
preparing a magwort dye bath by adding magwort powders or magwort exts. to H2O, (b) heating the bath at 50-100° and mixing fibers in the bath for 10-30 min, and (c) washing and drying the fibers. Fiber products comprise fibers dyed by the above steps. The dyed fiber products are especially useful for emale undergarments. A cotton female pantic was dyed in aque suspension containing 200 g magwort powder with particle diameter 500 µm in 10 L H2O for 30 min at \$90°, dried by sunlight, treated with a liquid containing 100 g polyurethene in 20 L H2O for 5 min at 100°, and	AB	The dyed fibers at	re prepai	red by the s	tens comprising the	stens of (a)
a migwort dye bath by adding magwort powders or magwort exts. to H2O, (b) heating the bath at 50-100° and mixing fibers in the bath for 10-30 min, and (c) washing and drying the fibers. Fiber products comprise fibers dyed by the above steps. The dyed fiber products are especially useful for emale undergarments. A cotton female pantic was dyed in aque suspension containing 200 g magwort powder with particle diameter 500 μm in 10 LH2O for 30 min at ≥90°, dried by sunlight, treated with a liquid containing 100 g polyurethene in 20 LH2O for 5 min at 100°, and	prepa	arino	. · prope.		copo compilicating cine	occpo or (a)
H2O, (b) heating the bath at 50-100° and mixing fibers in the bath for 10-30 min, and (c) washing and drying the fibers. Fiber products comprise fibers dyed by the above steps. The dyed fiber products are especially useful for emale undergarments. A cotton female pantie was dyed in aque suspension containing 200 g maywort powder with particle diameter 500 μm in 10 LH2O for 30 min at ≥90°, dried by sunlight, treated with a liquid containing 100 g polyurethene in 20 LH2O for 5 min at 100°, and			by add	na muawort	nowders or minwort e	vts. to
for 10-30 min, and (c) washing and drying the fibers. Fiber products comprise fibers dyed by the above steps. The dyed fiber products are especially useful for emale undergarments. A cotton female pantic was dyed in aque suspension containing 200 g mugwort powder with particle diameter 500 μm in 10  1 H2O for 30 min at ≥90°, dried by sunlight, treated with a liquid containing 100 g polyurethane in 20 L H2O for 5 min at 100°, and		H2O. (b) heating	he bath	at 50-100°	and mixing fibers in	the bath
comprise fibers dyed by the above steps. The dyed fiber products are especially useful for emale undergarments. A cotton female pantic was dyed in aque suspension containing 200 g mayort powder with particle diameter 500 um in 10 L H2O for 30 min at 290°, dried by sunlight, treated with a liquid containing 100 g polyurethane in 20 L H2O for 5 min at 100°, and		for 10-30 min and	(c) was	hing and dr	ring the fibers Fi	hen producte
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useful for emale undergarments. A cotton female pantie was dyed in aque suspension containing 200 g mugwort powder with particle diameter 500 um in 10 L H2O for 30 min at ≥90°, dried by sunlight, treated with a liquid containing 100 g polyurethane in 20 L H2O for 5 min at 100°, and	esne	rially	do by c	te above are	ps. The dyed fiber	produces are
suspension containing 200 g magwort powder with particle diameter 500 µm in 10 L H2O for 30 min at ≥90°, dried by sunlight, treated with a liquid containing 100 g polyurethane in 20 L H2O for 5 min at 100°, and	uppu.					
in 10 L H20 for 30 min at ≥90°, dried by sunlight, treated with a liquid containing 100 g polyurethane in 20 L H20 for 5 min at 100°, and						
L H2O for 30 min at ≥90°, dried by sunlight, treated with a liquid containing 100 g polyurethane in 20 L H2O for 5 min at 100°, and		adabanaton concati	1111g 200	y mugwort p	owder with particle	diameter 500 pm
liquid containing 100 g polyurethane in 20 L H2O for 5 min at 100°, and	10 10				- 27 - 2	
		L AZO FOR 30 min	1 290 ,	dried by 50	nlight, treated with	a
dried to give a dyed pantie with good color depth and washfastness.		dried to give a di	red pants	e with good	color depth and was	hiastness.

AN 2004:100826 CAPLUS  140:165563  TI Antibiotic additive and ink composition comprising the New York Samsung Electronics Co., Ltd., S. Kores  O U.S. Pat. Appl. Publ., 17 pp. CODEN: USXXCO  LA English FANL.CNI 1 PATENT NO.  ELECTRIC STREET NO.  PI US 2004024037  Al 2004025  US 2003-610525	
TI	
No.   Seung-min: Kim, Jae-hvan; Lee, Jong In: Lee, Dae	
PA Sampung Electronics Co., Ltd., S. Kores  0 U.S. Pat. Appl. Publ., 17 pp.  CODEN: USXXCO  LT Patent  A English FAN.CNT 1 PATENT NO.  KIND DATE APPLICATION NO.  PI US 2004024037 A1 20040205 US 2003-610525	
SO U.S. Pat. Appl. Publ., 17 pp.  CODEN: USXXCO DT Patent LA English FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO.  PI US 2004024037 A1 20040205 US 2003-610525	Hee
CODEN: USXXCO DT Patent LA English FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. PI US 2004024037 A1 20040205 US 2003-610525	
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FAN. CNT 1 PATENT NO. KIND DATE APPLICATION NO.  PI US 2004024037 A1 20040205 US 2003-610525	
PI US 2004024037 A1 20040205 US 2003-610525	
PI US 2004024037 A1 20040205 US 2003-610525	DATE
	20030702
KR 2004004036 A 20040113 KR 2003-11124	20030221
JP 2004043473 A2 20040212 JP 2003-270779	20030703
CN 1494829 A 20040512 CN 2003-160275	
PRAI KR 2002-38470 A 20020703	
KR 2003-11124 A 20030221	
OS MARPAT 140:165563	
GI	
· R2	
N-R1	
N-R <sup>3</sup>	
N R3	
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An antibiotic additive and an ink composition including the antibiotic additive include a compound produced by binding of an antibiotic substance having the following formula I (RI is a hydrogen atom, a hydroxy group, an antion group, a carboxyl group and sales thereof, a sulfonic acid group and sales thereof, and a phosphoric acid group and sales thereof, and a phosphoric acid group and sales thereof, and RR, RR, RR, RR, RR and RR are selected from a hydroxyn group, a nation group, a mation group, a nation group, a nation group, a nation group, a madian group, a madian group, a hydrazine group, a cyano group, a carboxyl group and sales thereof, a pubstituted or unaubstituted CI to C30 alkyl group, a substituted or unaubstituted CI to C30 alkynl group, a substituted or unaubstituted CI to C30 alkynly group, a substituted or unaubstituted CI to C30 alkynly group, a substituted or unaubstituted CI to C30 alkynly group, a substituted or unaubstituted CI to C30 alkynly group, a substituted or unaubstituted CI to C30 alkynly group, a substituted or unaubstituted CI to C30 alkynly group, a substituted or unaubstituted CI to C30 alkynly group, a substituted or unaubstituted CI to C30 alkynly group, a substituted or unaubstituted CI to C30 alkynly group, a substituted or unaubstituted CI to C30 alkynly group, a substituted or unaubstituted CI to C30 alkynly group, a substituted or unaubstituted CI to C30 alkynly group, a substituted or unaubstituted CI to C30 alkynly group, a substituted CI to C30 alkynly group, a substit

10/772,286

- ANSWER 25 OF 25 CAPLUS COPYRIGHT 2006 ACS on STN
  2003:505266 CAPLUS
  133:197899
  Rubbing-Induced Surface Morphology and Polymer Segmental Reorientations of
  a Model Brush Polyimide and Interactions with Liquid Crystals at the

- 50

- Rubbing-Induced Surface Morphology and Polymer Segmental Reorientations of a Model Brush Polyminde and Interactions with Liquid Crystals at the Surface
  Lee, Seung Woor Chae, Boknam; Lee, Byeongdur Choi, Wooyoung; Kim, Seung Bin; Kim, Sang Il: Park, Su-Moon; Jin Chul; Lee, Kyung Hoon; Ree, Moonhor Department of Chemistry, Center for Integrated Holecular Systems, EK21 Program, Division of Molecular and Life Sciences, Polymer Research Institute, Department of Materials Science Engineering, and Center for Advanced Functional Polymers, Pohang University of Science Technology, Pohang, 790-784, S. Korea
  Chemistry of Materials (2003), 15(16), 3105-3112
  CODEN: CHATEK; ISSN: 0897-4756
  American Chemical Society
  Journal
  English
  Poly(p-phenylene-3,6-bis[(4-(n-octyloxy)phenyl)oxy)pyromellitimide)
  (C8-PMDA-PDA F1), a model brush polymer with a fully rodlike backbone, was determined to be pos. birefringent by prims coupling anal. Films of the PI were examined in detail by optical retardation and polarized IR spectroscopy before and after mech. rubbing with a velvet fabric. The alignment response of liquid crystal (LC) mols. in contact with rubbed films of the model polymer was studied. Atomic force and croscoptic imaging revealed that rubbing caused microgrooves, and fine grooves (around 100 nm in size) with a surface morphol. that resembled ground beef, parallel to the rubbing direction. The morphol. of these grooves is attributed to the structure of the fabric fibers and the shear deformation characteristics of the polymer. At the rubbed surface, the polymer main chain and the n-octyl end groups of the bristles were determined to be oriented parallel to the rubbing direction whereas the phenyloxy units of the bristles were oriented perpendicular to the rubbing direction. When LC mols. SCB containing it Disperse Blue 1 dichroic dye, were placed in contact with the rubbed PI films, the LC mols. formed a uniformly aligned structure with a pretilit angle of Z5 to 87 degrees along the rubbing direction, depending on rubbing of Th
- RE.CNT 26

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(FILE 'HOME' ENTERED AT 12:34:09 ON 17 SEP 2006)

FILE 'REGISTRY' ENTERED AT 12:34:17 ON 17 SEP 2006

L1 STRUCTURE UPLOADED

L2 50 SEA SSS SAM L1

L3 13526 SEA SSS FUL L1

FILE 'CAPLUS' ENTERED AT 12:34:58 ON 17 SEP 2006

L4 10184 SEA ABB=ON PLU=ON L3

L5 21 SEA ABB=ON PLU=ON L4(L)(DYE OR COLORANT OR INK)

D QUE L5 STAT

D 1-21 BIB ABS HITSTR

FILE 'REGISTRY' ENTERED AT 12:37:00 ON 17 SEP 2006

L6 STRUCTURE UPLOADED

D

L7 0 SEA SSS SAM L6

L8 17 SEA SSS FUL L6

FILE 'CAPLUS' ENTERED AT 12:37:44 ON 17 SEP 2006

L9 15 SEA ABB=ON PLU=ON L8

D QUE L9 STAT

D 1-15 BIB ABS HITSTR

FILE 'REGISTRY' ENTERED AT 12:38:29 ON 17 SEP 2006

L10 STRUCTURE UPLOADED

D

L11 1 SEA SSS SAM L10

L12 24 SEA SSS FUL L10

FILE 'CAPLUS' ENTERED AT 12:39:11 ON 17 SEP 2006

L13 3 SEA ABB=ON PLU=ON L12

D OUE L13 STAT

D 1-3 BIB ABS HITSTR

E LEE KYUNG HOON/AU

L14 91 SEA ABB=ON PLU=ON "LEE KYUNG HOON"/AU

E RYU SEUNG/AU

E RYU SEUNG MIN/AU

L15 40 SEA ABB=ON PLU=ON "RYU SEUNG MIN"/AU

E JUNG YEON KYOUNG/AU

L16 16 SEA ABB=ON PLU=ON "JUNG YEON KYOUNG"/AU

L17 121 SEA ABB=ON PLU=ON L14 OR L15 OR L16

L18 41 SEA ABB=ON PLU=ON L17 AND (COLORANT OR DYE OR INK)

25 SEA ABB=ON PLU=ON L18 AND (COLORANT OR DYE)

D QUE L19 STAT

D 1-25 BIB ABS

### FILE HOME

L19

#### FILE REGISTRY

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 15 SEP 2006 HIGHEST RN 907161-02-8

DICTIONARY FILE UPDATES: 15 SEP 2006 HIGHEST RN 907161-02-8

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#### FILE CAPLUS

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FILE COVERS 1907 - 17 Sep 2006 VOL 145 ISS 13 FILE LAST UPDATED: 15 Sep 2006 (20060915/ED)

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